INTRODUCTORY ECONOMICS

FOR

HIGHER SECONDARY, PRE-UNIVERSITY AND INTERMEDIATE
STUDENTS OF INDIAN UNIVERSITIES

PART I

ELEMENTARY THEORY

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PREFACE TO THE THIRTEENTH EDITION

Further revision of the book in the direction of making it more acceptable to a teacher of modern Economics has been carried out in this edition. Changes made in the previous edition have already enhanced the popularity of the book. This has encouraged us to make further changes in the same direction. With this end in view several new topics have been introduced in this new edition and many more topics enlarged or re-written. Among these may be mentioned the concept of the equilibrium, how the economic system functions, outstanding features of a modern economy, benefits of the study of Economics in under-developed countries, consumers' equilibrium, producers' equilibrium, law of variable proportions, production function, internal and external economies, cost curves, equilibrium of firm, equilibrium of industry, market forms, deficit financing, comparison between competitive pricing and monopoly pricing, etc. Chapters on Distribution, *viz.*, Rent, Wages, Interest and Profits, have been thoroughly revised and also, to make far more logical arrangement, discussion on product pricing and factor pricing has been brought together. The chapter on Social Accounting has been rewritten to make it more easily understandable by the beginner. Objective type of questions, which are more coming into vogue, have been added at the end of each chapter. We have no doubt that this major revision will add to the growing popularity of the book.

January, 1963.

AUTHORS

PREFACE TO THE FIRST EDITION

This is an attempt to meet the needs of the beginners in the study of Economics. It is intended to give the reader a thorough grasp of the basic principles of Economics. The authors have, in their treatment of the subject, endeavoured to maintain a simple and lucid style and presented it in such a manner as to stimulate further interest in its study. With this end in view illustrations drawn from everyday life have been profusely interspersed throughout the book. The latest developments, both in Economic Theory and Indian Economics, have also been incorporated. It is confidently hoped that it will serve as a useful and easy introduction to the study of Economics.

Hoshiarpur,
OCT. 10, 1948.

KEWAL KRISHAN DEWETT,
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CHAPTER I

INTRODUCTORY

Economics, a Science of Scarcity

1. **Definition.** The first question that a beginner of a new subject asks is what it is and what it is about. We can only give him a working definition. It is not easy to define Economics fully in the very beginning. One can define a subject only when one has read it completely. Only then one can have a clear and complete picture of the subject in his mind. All the same, it is necessary to have some rough idea about the subject when one starts its study.

To start, we can give the student only a rough idea about Economics by taking an example. Mohan is a first year student. Suppose his father has agreed to give him Rs. 75 per month to enable him to carry on his studies in the college. With this limited sum at his disposal, he has to meet all his needs. He has to pay tuition fee, hostel fee, mess charges and other dues of the college ; he has also to meet other bills like the bill of the canteen, the washerman's bill, etc. He may like to go to a picture house or entertain friends at a restaurant, buy books, stationery, etc. In fact, he wants to do or to buy so many things. But the amount of money that he has is limited and his wants are unlimited. Economics helps us in such a situation.

Economics tells us how a person tries to satisfy his unlimited wants with his limited means ; in other words, how to use scarce goods to his best advantage or how to economise. A man has only a limited amount of cash, land, housing accommodation, and of other things. But he wants to do so many things with them. With the limited amount of cash he has, he wants to buy so many things, but he cannot buy them all. He must, therefore, choose what to buy and what not to by. This is Economics. Economics is a science of choice when faced with scarce means and unlimited ends. In short, Economics teaches us to make the best use of our limited resources. It tells us that the scarce means at our disposal can be put to alternative uses so as to derive the maximum advantage out of them. It merely means prudence or wisdom in the use of things. We should use them in a manner as to get the largest amount of satisfaction possible. Economics tells us how to do it.

Economics has been defined in different ways by different writers. We shall now study some of these definitions.

Is Economics a Science of Wealth ? Adam Smith in his book 'Wealth of Nations' and the early economists defined Economics as a science of wealth. But this is not a correct definition. In this definition, attention was exclusively paid to wealth as if wealth was everything . No attention was paid to man for whom wealth is really

meant. Economics thus came to be wrongly called the science of wealth. Writers like Carlyle and Ruskin condemned this worship of Mammon (the god of wealth). They accused Economics of selfishness and meanness. This definition was, therefore, rejected.

Modern economists hold a different view. They regard Economics as *a science of man rather than of wealth.* No doubt, wealth is still there, because that is the centre of all economic activity. But it is now emphasized that wealth is only a means to an end, the end being human welfare. Man is primary and wealth occupies only a secondary place. This point is clearly brought out in the following well-known definitions of Economics :—

"Economics is the science which treats of those social phenomena that are due to the wealth-getting and wealth-using *activities of man.*"—(*Ely*).

"Economics is a study of man's actions in the ordinary business of life : it enquires how he gets his income and how he uses it.....Thus it is on one side a study of wealth and on the other, and more important side, a part of the study of man."—(*Marshall*). When it is said that Economics is a science of ordinary business of life, it means that it tells us about a man's way of living, that is, the way in which be earns his livelihood and the way in which he spends his income.

It is thus clear that the object of economic study is man, but we confine our study to those of his actions which relate to wealth, *i.e.*, how he produces wealth and how he uses it ; how wealth is exchanged and how it is distributed in the community. It thus covers Consumption, Production, Exchange and Distribution. Hence Economics is a study of man and not merely of wealth. According to Marshall, we study material welfare of man which he obtains by the use of his income.

Marshall's definition given above contains a view of Economics which was at one time most widely accepted. Recently, however, **Lionel Robbins** has given a new definition, which he claims to be more scientific. According to him, **"Economics studies human behaviour as a relationship between ends and scarce means which have alternative uses."** It is this definition on which modern Economics is mostly based.

This definition is based on the following facts :—

(*a*) Our "ends" or wants are unlimited. We possibly cannot satisfy them all. If one want is satisfied, another crops up. If our wants had been limited, no economic problem would have arisen. Like other animals, we would have been completely satisfied as soon as our elementary needs had been met. As it is, our wants are numberless and we cannot satisfy them all. We must pick and choose. Here Economics comes in.

(*b*) Although our wants are unlimited, yet the means at our disposal to satisfy these wants are scarce or limited. If these means, like our wants, had been unlimited, then also no economic problem would have arisen. We could have anything in any quantity whenever and wherever we liked, because all goods would be free

goods. Actually, however, most of the things that we want are not free goods and we have to work or pay for them to obtain them. That is how economic problem arises.

(*c*) Also, the scarce means have alternative uses. Not only are our means scarce, but they are also such as can be put to a number of uses. This makes them all the more scarce. If a commodity or a service could be put to one or a few uses only, no economic problem would have arisen. As soon as that use had been made of it, the commodity would have become a free good. Since our scarce means can be put to so many uses, we must choose between these uses. We must decide what to buy and what not to buy. This will show our scale of preferences. This again is a problem of Economics, which has also been called a science of choice. If we are careless in the use of our resources, our actions will be called uneconomical.

Unless all the above three conditions are present, economic problem cannot arise. Multiplicity of wants *alone* or the scarcity of means *alone* cannot create an economic problem nor *merely* the alternative applicability of scarce means. "But", says Robbins, "when time and means for achieving ends are limited *and* are capable of alternative application, *and* the ends are capable of being distinguished in order of importance, then behaviour necessarily assumes the form of choice", *i.e.*, it has an economic aspect.

Some followers of Marshall have criticised Robbins' definition by saying that it lacks human touch and that it is impersonal, colourless and neutral as regards ends. They say Economics cannot altogether do away with normative or ethical significance. Robbins has reduced Economics to merely valuation theory and as such has made it narrow. Further, it is an individualistic study and not of the economy as a whole as Keynesian Economics is. Moreover, it says nothing about the theory of economic development which has recently become very important.

In the Keynesian sense, Economics may be defined as the study of administration of scarce resources and of the determinants of income and employment. It is an aggregative study. It concerns itself with the aggregates or averages of the entire economy such as national income, total savings, total investment, total output, total employment, etc.

Thus, according to Robbins, Economics tells us how a man makes use of his scarce means, having alternative uses, for the satisfaction of his unlimited ends.

2. **Multiplicity of Wants and Scarcity of Means.** From the discussion of Robbins' definition given above, it is clear that the whole superstructure of Economics rests on two foundation-stones :

(1) Multiplicity of wants, and (2) Scarcity of means.

The first, *i.e.*, multiplicity of wants, is derived from the character of man himself and the second (*i.e.*, scarcity of means) from his environment. Let us discuss them more fully.

Multiplicity of Wants. In common with other animals, man has got some organic or elementary wants. He must have a mini-

mum amount of food to support life ; he must have some clothing to protect himself from heat and cold ; he must also have some sort of shelter. Without these things man cannot live long. They are thus termed *necessaries of life*.

But man is superior to animals. He has a mind and can think. He is not satisfied when only his organic needs are met. Look at a cow. She has fed on grass to her fill and drunk water from a pond nearby ; and now she retires to the shade of a tree chewing the cud. She is perfectly satisfied. She wants nothing else. But man is different. Mere filling of the belly does not content him. He hankers after what he has not. He does not want to exist only : he wants to live well ; he wants to own things of beauty and culture. When his hunger and thirst are satisfied, he tries for variety and plenty. Look at a man's food. It consists of vegetables, eggs, meat, pulses, spices, tea, coffee, milk, fish, and what not. He uses every known method to make it tasteful. Even a poor man exercises his right of choosing between saltish and sugared *lassi*.

As a matter of fact, no person, however poor, thinks only of filling his belly when he eats. He wants to derive pleasure from eating according to his means and tastes, and there is no end to his wants once a man starts on this road.

The same is the case when a person wants clothes. He is very particular about their fashion. The dress of a civilised man consists not only of what is necessary to cover his nakedness. Surely, nobody would die if he had to go without a necktie. The desire for personal decoration is an important factor when a man clothes himself. There is no limit to what he might want for this purpose.

In housing or shelter, too, human vanity plays an important part. No man, rich or poor, is satisfied with bare shelter. Every effort is made to make the house comfortable and beautiful. One can never be completely satisfied when one runs after comfort and show.

Also, man does not want merely food, clothing and shelter. He wants so many other things besides—books and newspapers, furniture and radio sets, medicines, motor car, cameras, tape-recorders, watches, and what not. Then he wants machines to make these things. Really, there is no end to man's wants, so much so that he almost forgets his essential needs and goes on wanting one thing after another. Man is so made that when one want is satisfied, another takes its place.

At no moment can it be said that man is fully satisfied and wants nothing else. He suffers from what is sometimes called 'divine discontent'. He is ever engaged in pursuit of dreams and ideals. In short, he is insatiable. We are thus faced with multiplicity of human wants.

Scarcity of Means. This is the second foundation-stone of Economics. Although human wants are infinite in number and bewildering in variety, the means to satisfy them are strictly limited. No doubt, nature provides some goods like air and sunshine free and in unlimited quantities ; but these free gifts of nature alone cannot

completely satisfy man's wants. He wants so many other things, most of which are scarce. He has to make an effort to get them ; and if *he* gets them, *someone else* has to go without them. If everything had been free like air and sunshine, there would have been no economic problem. For instance, if there had been a stream flowing with milk and honey, the question of money payment would not have arisen. But, as it is, we find scarcity facing us all around.

Scarcity does not mean *absolute* scarcity. It is only *relative* to our needs. A thing, for example, poison, may exist in a very small quantity, but if nobody wants it, it cannot be called scarce. Similarly, there may be an abundance of a particular commodity, say, fruits in Kashmir, but because they are not enough to satisfy the needs of *all* the people, they must be considered scarce. The means to satisfy our wants are scarce in the sense that they are available in less quantities than our requirements. That is what creates an economic problem.

Multiplicity of wants and scarcity of means are thus the two foundation-stones on which the science of Economics rests. There is the insatiability of man and the niggardliness of nature. Our wants are unlimited and our means to satisfy them are limited and have alternative uses. Keeping these two fundamental facts in view, Lionel Robbins, a prominent economist of today, defines Economics as "the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses."

According to Keynes, Economics studies what determines income and employment in a country and causes of fluctuations therein.

3. **Subject-matter of Economics.** Economics has a subject-matter of its own. We can know something about the subject-matter of Economics from its definition given above. The student already knows about Mathematics, History and Geography. But Economics is new to him and he cannot say what it is about.

We can say that Economics studies man's life and work, not the whole of it, but only one aspect of it. It does not study how a person is born, how he grows up and dies. This is the work of another science named Biology. Economics does not study how human body is made up and how it functions. That is the subject of Physiology. Economics does not tell us how a man thinks. It is Psychology which studies man's mind. Economics does not study the organization of State and its functions. This is the subject of Political Science. **Economics simply tells us how a man utilises his limited resources for the satisfaction of his unlimited wants.** A man has a limited amount of money and time ; but his wants are unlimited. He must so spend the money and time he has that he derives maximum satisfaction. This is what Economics teaches us.

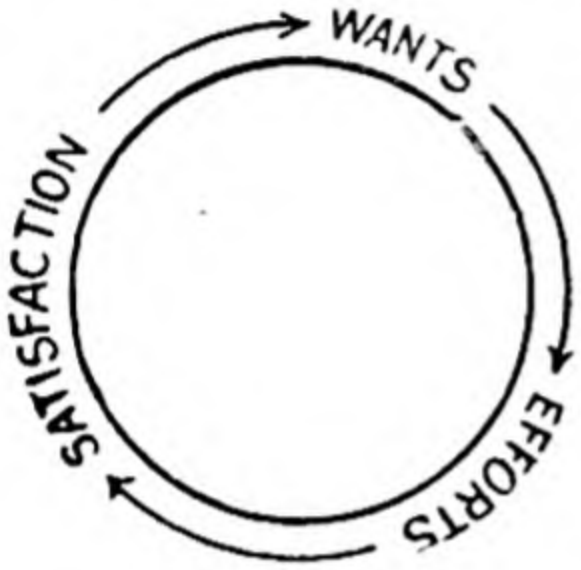
If we look around, we see the farmer tilling his field, the workman working in the factory, the clerk at his desk, the doctor attending to his patients, the teacher teaching his students, and so on. They are all engaged in what is called *economic activity*. They earn money to satisfy their wants.

It is with this part of man's life that Economic deals. Here we find him busy earning money. But he does not want money for its own sake. He needs it to buy things which satisfy his wants.

The purpose of all economic activity is the desire to purchase goods to satisfy human wants. Neither goods nor money is an end in itself. They are needed for the satisfaction of human wants and to promote human welfare.

A man wants food, clothes and shelter. To get these things he must have money. For getting money, he must work or make an effort. This effort leads to satisfaction. Thus **Wants—Efforts—Satisfaction, sums up the subject-matter of Economics.**

In a primitive society, the connection between wants, efforts and satisfaction isclose and direct. A man feels hungry ; he picks up some fruit, eats it, and is satisfied. But in a modern society things are not so simple and straight. Here a man produces what he does not consume and consumes what he does not produce. The shoe-maker produces shoes, he cannot use them all by himself. He sells them for money with which he buys the things he needs. This work of selling what you do not want and buying what you want is called Exchange. Today the process of exchange comes in between wants, efforts and satisfaction.



Nowadays most of the things we need are made in factories. To make them the worker gives his labour, the landlord his land, the capitalist his capital, while the businessman organizes the work of all these. They all get a reward in money. The labourer earns wages, the landlord gets rent, the capitalist gets interest, while the *entrepreneur's* reward is profit. Economics studies how these incomes —*wages, rent, interest and profits*—are determined. The process is called *Distribution.* Like Exchange, Distribution also comes in between efforts and satisfaction in a modern society.

Thus, we can say that the subject-matter of Economics is **Consumption** (*i.e.*, the satisfaction of wants), **Production** (*i.e.*, producing things or creating utilities or making an effort to satisfy our wants), **Exchange** and its mechanism (*i.e.*, money, credit and banking, etc.), and finally **Distribution** (*i.e.*, sharing of all that is produced in the country among workers, landlords, capitalists and organizers). In addition, Economics also studies Public Finance. Thus it is indeed a very wide subject.

Broadly speaking Economics may be described as a study of the economic system under which men live and work. It deals with decisions regarding the commodities and services to be produced in the economy, how to produce them most economically and how to provide for the growth of the economy.

4. **Scope of Economics.** While discussing the subject-matter and definition of Economics, we have said something about the scope of Economics too. But there are a few more things which we have to discuss in considering the scope of Economics.

'Scope' means the sphere of study. We have to consider what Economics studies and what lies beyond it. The scope of Economics may be discussed under the following heads :—

(*i*) *Its Subject-matter.* We have already seen that Economics studies those actions of man which are connected with wealth. It studies man's ordinary business of life and how he makes use of his limited means to satisfy his unlimited wants. Economics studies how wealth is consumed, produced, exchanged and distributed. Exchange includes determination of the value of commodities, money, banking, international trade, foreign exchange, etc. In distribution, we study the determination of rent, wages, interest and profit. Consumption, Production, Exchange and Distribution are the four departments of the study of Economics. Public Finance is also studied in Economics. Thus the subject-matter of Economics is indeed very wide.

According to the modern approach, the scope of Economics is to study not only price theory but also the economy as a whole. We study for instance how income is generated in the economy. We study the factors that determine a country's national income, savings, investment, output, employment, etc. (This is explained later in Section 9.)

(*ii*) *A Social Science.* We have seen that Economics studies human beings. But it does not study them as isolated individuals living aloof in jungles or in mountain caves. Rather, it studies man living in organized society, exchanging his goods for those of others, influencing them by his action and being influenced by them in turn. He depends on them, and they on him. Economics is thus a social science and not one dealing with individual human beings. Interest has now almost completely shifted to the economy as a whole, how it grows and develops, the factors that hinder its growth and the measures that would help or accelerate it.

(*iii*) *Science or Art.* We have also to consider whether Economics is a science or an art. We shall discuss this question more fully below. Here we may say that Economics is both a science and an art. It not only explains why certain things happen, it also tells us how practical problems should be solved.

(*iv*) *Positive Science and Normative Science.* A positive science explains the 'why' and 'wherefore' of things, *i.e.*, their causes and efforts. A normative science, on the other hand, discusses the rightness or wrongness of things. Economists hold different views on this point. Some economists think that Economics is only a positive science and as such explains why things are as they are. It is neutral as regards ends. Others think that it is a normative science and tells us as the things ought to be.

Our view is that Economics is both a positive and a normative science. It not only tells us why certain things happen, it also says whether it is the right thing to happen. For example, we know that a few people in the world are very rich while the masses are very poor. Economics should explain not only the causes of this unequal distribution of wealth, but it should also say whether this is good or bad. It might well say that wealth ought to be fairly distributed. Further it should suggest the methods of doing it.

We may, then, sum up the scope of Economics by saying that **it studies man's actions in relation to wealth from the social point of view. It does not merely explore and explain but it also advocates and condemns. It not only investigates facts and discovers truths, but it also prescribes rules of life and passes judgment as to what is right and what is wrong. The scope of Economics is very wide indeed.**

5. **Is Economics a Science or an Art?** When a student joins a college, he has to choose between two groups of subjects—Science subjects and Arts subjects. In the former group are included Physics, Chemistry, and Biology, and in the latter History, Civics, Economics, Philosophy, Sanskrit, etc. According to this classification, Economics falls in the Arts group. But this is not a sound classification, and does not help us in deciding whether Economics is a science or an art.

Let us first understand what the terms "science" and "art" really mean. A science is a systematized body of knowledge. A branch of knowledge becomes systematic when relevant facts have been collected and analysed in a manner that we can "trace the effects back to their causes and project causes forward to their effects." Then it is called a science. In other words, when laws have been discovered explaining facts, it becomes science. Facts are like beads. But mere beads do not make a necklace. When a thread runs through the beads, it becomes a necklace. The laws or general principles are like this thread and govern the facts of that science. A science lays down general principles which help to explain things and guide us.

The knowledge of Economics has advanced a great deal. It has reached a stage when its facts have been collected and carefully analysed, and 'laws' or general principles explaining facts have been laid down. Thus, the study of Economics has become so thoroughly systematized that it is entitled to be called a *science*.

But Economics is also an *art*. An 'art' lays down precepts or formulae to guide people who want to achieve a certain aim. The aim might be the removal of poverty from a country, or the production of more wheat from an acre of land.

Many English economists consider that Economics is a pure science and not an art. They claim that its function is merely to explore and explain and to help in the solution of practical problems. Yet many others are of the opinion that *Economics is also an art*. Economics does undoubtedly help us in solving many practical problems of the day. It is not a mere theory; it has great practical use. **It is both light-giving and fruit-bearing.**

We conclude, then, that *Economics is both a science and an art.*

6. **Economic Laws.** It has been established that Economics is a science. Like other sciences Economics has got its own set of principles or laws. "Law" here does not mean a statute (government) law, which must be obeyed, otherwise there will be a penalty. Nor is it like a moral law, such as "Respect your parents." A moral law is based on public opinion, but the breaker of the moral law is not punished. It is only a desirable rule of conduct.

An economic law simply means a principle or generalisation according to which a person tends to act when he is engaged in an economic activity. It is a rule of economic conduct. Man's actions in economic life are governed by these rules.

What is the nature of economic laws ? Economics is a science which deals with man ; and man's actions are always uncertain. Therefore, we cannot say what is going to happen in the economic sphere. Man has a will of his own, and his actions cannot follow some rigid rules. We can only say how he is *likely* to act under given circumstances and not how he *must* act. That is why it is said that an economic law is only a **statement of a tendency**. It simply indicates what the tendency is and cannot say with any degree of certainty what must happen. It cannot predict. We can never be sure of the consequences of an economic measure. The working of the economic system is a very complicated affair.

The validity of an economic law depends on many outside factors. If wages are higher in Bombay than in Delhi, the economic law says that workers from Delhi will *tend* to move to Bombay. Their actual movement will, however, depend on so many other factors. They will take into consideration prices in Bombay, whether any housing accommodation is available, whether they have friends there to help and advise them, and so on. If these conditions are satisfactory, they will go. Economic laws are, therefore, conditional or *hypothetical*. A qualifying phrase, "*other things being equal*" has to be added to them. They are true only under certain conditions. If the conditions are fulfilled, the result follows, otherwise not.

Economics is thus not an exact science like Physics and Mathematics. The human element and social friction in the economic sphere make economic laws less exact than physical laws. It is for this reason that Marshall compared economic laws to the complex laws of tides rather than to the exact laws of gravitation. A simple law of gravitation tells us that an object thrown into the sky must return to earth. The force of gravity pulls it down. There can be no exception. Laws of Economics are not like this. They are hedged round with limitations and exceptions. They can better be compared with tides which depend on the relative position of earth and moon. One can never say when the tide will come and how high it will rise.

Of all social sciences, however, Economics is the most exact. This is so because the strength of an economic motive can be measured in terms of money. Other sciences have no such measuring rod. Hence Economics is more exact than History and Political Science.

It is said that economic laws are historico-relative and as such have no relevance outside certain historical conditions. But the fact is that they are based on very wide human experience and have almost a universal applicability. Thus people placed in diverse economic situations can benefit from them.

7. Relation of Economics with Other Sciences. Economics has relation with almost all other sciences. All sciences have been developed by man for the benefit of mankind. As a science, which is primarily concerned with man's welfare, Economics freely makes use of the other sciences in its study. It uses, in its own reasoning, the conclusions at which the other sciences may have reached.

Economics and Politics. But its relation with the social sciences is the closest. *Economics and Politics* are very closely mixed up these days. All political events have their roots in economic causes. All political problems are economic in nature. If you follow discussions in the legislature, you will find that most of the time of the legislature is taken up by economic matters. Political institutions also affect economic conditions, and *vice versa*. Dictatorship moulds economic conditions in a different manner from a democracy. Foreign rule in India was largely responsible for Indian poverty. Thus there is a very close connection between Economics and Politics.

Economics and History. Economics makes use of History in understanding the background of the present-day economic problems. History is also useful in establishing or verifying economic laws. But History is incomplete unless it discusses the economic development of man. History must devote its attention to the discussion of the economic condition of the people. It does not merely tell a tale of kings. Thus,

Economics without History has no root,
History without Economics has no fruit.

Economics and Ethics are also inter-related. Ethics is a science of what *ought* to be. It tells us whether a thing is right or wrong. Now ethical or moral considerations govern all economic activity. The economist cannot justify immoral activities. Many modern economists (*e.g.*, Robbins), however, think that Economics is a pure science and as such it is not concerned with right or wrong. It is said to concern itself merely with means and ends lie outside its scope. It is neutral as regards ends. The ends may be good or the ends may be bad, Economics is not concerned.

But our view is that Economics cannot be dissociated from Ethics. Ethics is the handmaid of Economics. The economists are being called upon more and more to give their advice on economic affairs, and they should not shirk this task. Hence Economics is both a positive science and a normative science.

8. Importance or Benefits of the Study of Economics. Economics is considered these days as one of the most important branches of knowledge. The number of persons eager to study the subject is increasing from year to year. This is as it should be, for this study has very many advantages. In brief they are :

(*a*) Economics teaches us many interesting and instructive facts about man's behaviour when he is engaged in economic activity. The inner working of his mind in economic matters is revealed to us. We come to understand the various motives which guide him. It is both a fascinating and a fruitful study.

(*b*) Economic reasoning trains our mind as reasoning does in other sciences. It enables us to think clearly and judge correctly and thus affords useful mental exercise. A careful student of Economics can easily see through the game of politicians who want to deceive the public. He will not be misled by cheap newspaper propaganda. No doubt, "Economics is no philosopher's stone to turn everything it touches into gold, but it will help at least to distinguish gold from baser metals."

(*c*) The study of Economics helps us to understand how the complicated economic system of today functions almost automatically without any central control. Every economic disturbance somehow tends to smoothen itself out. For example, if there is a shortage of a commodity, its price will rise. This will cut down unnecessary demand so that the demand will be brought down to the level of supply.

(*d*) Economics teaches us the important lesson of the mutual dependence of man on man. We come to realise how we depend on others for the satisfaction of our wants, and how others depend on us. It clearly brings home to us the bond that binds worker to worker, industry to industry and country to country. This knowledge adds to our sense of responsibility and thus leads to better work and a happier society.

(*e*) The study of Economics makes us useful and intelligent citizens. Most of the problems today are fundamentally economic in character. It is only Economics that can give us a correct understanding of the problems of agriculture, industry, trade, transport, etc. Economics enables us to shape and mould the State policies for solving these problems. A student of Economics can easily understand questions relating to taxation, currency, exchange, etc. Thus it is clear that the study of Economics goes to build up a body of keen, intelligent and useful citizens.

(*f*) Besides, the knowledge that Economics gives us has a great practical value in life. Economics is a science which is closely related to life. In most government departments, knowledge of Economics is found useful and is sometimes considered indispensable.

To businessmen, industrialists, bankers and leaders in public life, Economics is specially useful. It supplies them with a rich store of useful facts. It cannot render them any technical advice but it helps them to avoid pitfalls. It leads them to correct conclusions. A householder too finds the knowledge of Economics useful, for it helps him in wisely spending his income.

(*g*) Finally, it is Economics that we look up to for solving the problem of poverty. "Economics alone will not build a millennium ; but in that building—(and in whatever preliminary pulling down may be necessary), it is an essential tool."

In view of what has been said above, it is clear that the study of Economics is not only useful in ordinary life, but also serves as an excellent mental discipline. The study of Economics is of special value for under-developed or developing countries like India. From

the study of the theory of economic development, we can learn what factors check the economic progress of a country and how we can make that progress more rapid. Backward countries have derived much benefit from the theory and techniques of planning.

9. **Divisions of Economics.** As already pointed out, the study of Economics is divided into four main departments or divisions, *viz.*, Consumption, Production, Exchange, and Distribution.

In Consumption, we study the nature of human wants as well as the principles governing their satisfaction. The law of diminishing marginal utility, law of substitution, the law of family expenditure and consumer's surplus are of special importance. We also study the nature of demand, whether it is elastic, or inelastic, as well as the law of demand.

In Production, we study how man makes efforts to satisfy his wants by producing wealth. In particular, we see how the four agents of production, *viz.*, land, labour, capital and organization, co-operate and combine in the work of production. We study each of these agents, their importance and the conditions of their efficiency.

In the third department of Economics, *viz.*, Exchange, we discuss how buying and selling are done and how prices are determined. This happens through the interaction of the forces of demand and supply.

The fourth department, Distribution, is devoted to the study of the respective shares that go to the four agents—land, labour, capital and organization. These shares take the form respectively of rent, wages, interest and profit. In Distribution, we study how the share of each agent of production is determined.

It is usual to divide Economics into these four departments only. But in addition to these, we have to study also the problems of Public Finance as well. Here we discuss how governments get money and how they spend it. Thus it involves a consideration of taxation and allied questions.

It may, however, be pointed out that it is now only an old approach to divide Economics into these four divisions. The modern approach is different. The study of Economics is now usually divided into two parts : (*a*) Income Theory ; and (*b*) Price Theory.

In **Income Theory,** we study the working of the economic system *as a whole.* That is, we study what determines the *total* level of income in a country, its *total* expenditure, *total* employment and the *general* price level (not the prices of individual commodities or services). We also study what causes fluctuations in these total quantities. This is the aggregative approach, also called *Macro-Economics.*

In **Price Theory,** also called *Micro-Economics,* we study the determination of prices. We no longer divide the study of Economics into Consumption, Production, Exchange and Distribution. They are all covered by price theory. We shall see that prices are determined by the interaction of demand and supply. The theory of demand covers consumption and supply covers production. According to the old arrangement, in exchange we studied commodity prices and in

distribution we studied factor prices, *i.e.*, rents, wages, interest and profit. But in price theory we study both commodity prices (*i.e.*, exchange) and factor prices (*i.e.*, distribution). Thus all the old four divisions of Economics are covered in what we now call Price Theory.

In **Micro-economics** we study small individual parts of the economy. For instance, we study the individual consumer's behaviour or that of an individual firm or what happens in any particular industry. In the price analysis, we study the determination of the price of an individual commodity or of a particular factor of production, *i.e.*, its reward. In the case of demand and supply, we study the demand and supply of an individual commodity or a factor. We study the income of an individual or firm of an industry and not the national income. In micro-approach, we assume full employment in the economy and on that assumption, the economic problem is mainly of resource allocation or of theory of price. That is why till recently Economics concerned itself mainly with the theory of value and distribution and it ignored the study of the economic system as a whole.

In recent years, thanks to late Lord Keynes, increasing attention is being given to the analysis of the economic system as a whole. This is **Marco-economics**. It studies aggregates or averages of the entire economy such as national income, output and employment, total consumption, total savings and investment, aggregate demand and aggregate supply, and so on. In this approach full employment is not assumed. We study the determinants of full employment and see how the fullest possible employment can be attained. The macro-approach is essential, for what is true of the parts may not be true of the whole. After all, the problem of the aggregate is not merely a matter of adding or multiplying what happens in respect of the various individual parts of the economy.

Neither of these two approaches is adequate for the analysis of the economic system. It is essential to integrate the two approaches to arrive at a correct solution of the economic problems.

10. **Inter-relation of the Departments of Economics.** The four departments of Economics—Consumption, Production, Exchange and Distribution—do not stand apart in water-tight compartments. This division of the subject into four parts is for the convenience of study only. Really the subject is one complete whole and these departments are closely related to one another. Let us see how.

Consumption and Production. The close relation between the two is quite obvious. It is the consumer's desire to consume which leads to production. Consumption too, in its turn, depends on the volume and nature of production. Unless there is production, there cannot be any consumption. The two are thus mutually dependent.

Consumption and Exchange. These are the days of specialization. People produce what they do not consume—at any rate not the whole of it—and they consume what they do not produce. Exchange is thus essential if consumers are to satisfy their wants.

Consumption thus depends on Exchange. But unless there are consumers, no exchange is called for. Hence exchange and consumption depend on each other.

Consumption and Distribution. Consumption is also closely related to Distribution. In Distribution we discuss the share that goes to each of the agents of production out of the national income. Now, it is clear that if consumers are well supplied with the necessaries of life, they will be efficient workers and will be entitled to a greater share of the created wealth. Consumption thus influences Distribution.

In its turn, the nature of Consumption depends on the Distribution of wealth in a community. What a person consumes depends on the income he gets. If his wages are low, his consumption of goods too will be low and his standard of living will be low.

Nowadays the problems of Distribution are regarded as important as those of Production, perhaps even more so. The real welfare of the people depends not so much on the aggregate production of wealth in the country but on how wealth is distributed. It depends on the respective shares accruing to the different sections of the community.

Production and Exchange. Production is incomplete without Exchange. Articles produced must reach the hands of the consumers and this is impossible without Exchange. The system of buying and selling and the existence of markets stimulate production. But Exchange also depends on Production. Unless goods are produced, the question of exchanging them does not arise. There is thus interdependence between Production and Exchange.

Production and Distribution. The greater the volume of production in a country, the greater would be the share of each agent of production. The character of Distribution, therefore, depends on the total volume of Production. Goods must be produced before they can be distributed. In its turn, Production, too, depends on Distribution. The methods and character of Distribution determine the income of a group. An individual's income affects his efficiency, which, in its turn, determines the volume of production. If workers are paid better wages, the productive efficiency of the country will certainly improve. Production will consequently be larger. Hence one department depends on the other.

Exchange and Distribution. Exchange assists Distribution. A man gets his share of the national income in the form of money. But he does not want money for its own sake. He has to buy things he needs. He is able to secure these things only through exchange.

It is clear then that the various departments of Economics are closely inter-related. Each one of them depends on the other, and they act and react upon one another. We may repeat that we have split Economics into these divisions only for the sake of convenience of study. They are not water-tight compartments. They are closely inter-related.

We may repeat that this is the traditional approach. The divisions and their inter-relation according to modern approach have been indicated in the previous section.

WHAT YOU LEARN FROM THIS CHAPTER

Definition of Economics. It is wrong to define Economics as a science of wealth. "Economics is a study of man's actions in the ordinary business of life. It enquires how he gets his income and how he uses it—thus it is on one side the study of wealth, and on the other and more important side, a part of the study of man."—(*Marshall*).

Robbins defines Economics as "the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses." Multiplicity of the wants and the scarcity of means are the two foundation-stones of Economics.

Foundations of Economic Science. Economics rests on the multiplicity of wants and the scarcity of means. The insatiability of man and the niggardliness of nature are the two foundation-stones of Economics. Human wants are unlimited whereas the means to satisfy them are not only limited but can also be put to alternative uses.

What is the Subject-matter of Economics? "Wants—Efforts—Satisfaction" constitute the subject-matter of Economics. It includes Consumption, Production, Exchange and Distribution of wealth. It studies man's actions in relation to wealth.

Scope of Economics. It studies man's action in relation to wealth—Consumption, Production, Exchange, and Distribution of wealth.

It is a social science.

It is both a science and an art.

It is a positive as well as a normative science.

Is Economics a Science or an Art? Economics is a **Science** as it is a systematized study. It has formulated laws to explain its facts. It is also an **Art** as it helps in the solution of practical problems. It has a great practical importance.

Economic Laws. Economic Laws are different from government laws and moral laws.

Economic Laws are hypothetical and have a qualifying phrase, "other things being equal." They are mere statements of tendencies. They are not certain or definite like the laws of physical sciences. They are more like the laws of tides rather than the laws of gravitation.

Relation of Economics with Other Sciences. Economics has relations with almost every other science and makes use of them. But it is more closely connected with social sciences like Politics, History, Ethics and Jurisprudence. These days Economics and Politics are so closely mixed up that it is almost impossible to separate them. History cannot be complete without Economics, and Economics also makes use of History in testing its theories. Economics is also closely connected with Ethics because Economics is not only a positive science but also a normative science.

Advantages of the Study of Economics:

(*a*) It teaches us many interesting and instructive facts about man's behaviour in the economic sphere.

(*b*) It is a useful mental exercise. It trains our minds.

(*c*) It teaches us how the economic system automatically functions.

(*d*) It teaches us the lesson of man's mutual dependence.

(*e*) The study of Economics makes us useful citizens.

(*f*) Economics is of practical value to the businessman, the banker, the industrialist, the legislator and the householder.

(*g*) It helps in the solution of the problem of poverty.

Divisions of Economics. There are four departments of Economics, *viz.*, Consumption, Production, Exchange and Distribution.

Consumption is concerned with the satisfaction of human wants and Production with the creation of goods for the satisfaction of human wants. Exchange deals with markets and the determination of prices of goods; and Distribution discusses the sharing of the national income among the four agents of Production.

The study of Economics is now usually divided into Price Theory (Micro-economics) and Income Theory (Macro-economics).

Inter-relation of the Departments of Economics. These departments cannot be separated into water-tight compartments. They are closely inter-related.

Consumption and Production—

Without the stimulus of consumption there could be no production, and a thing must be produced before it can be consumed.

Consumption and Exchange--

It is through Exchange only that the consumers are able to get what they want.

Consumption and Distribution—

Better Consumption means higher efficiency ; higher efficiency claims a larger share in national income. Thus, Distribution depends on Consumption. But Consumption obviously depends on Distribution, *i.e.*, on the income that a man gets.

Production and Exchange—

Production is incomplete without Exchange. Also, unless there is production there can be no Exchange.

Production and Distribution—

The larger the production, the larger the national income to be distributed. A more even distribution of wealth will add to the efficiency of the workers and thus affect production.

Exchange and Distribution—

Distribution is made through Exchange, for only thus is one able to change one's money into the goods that one wants.

CAN YOU ANSWER THE FOLLOWING QUESTIONS ?

1. *What do you understand by "economic activity" ? Give a few examples.*

2. *What are economic activities ? Name five economic activities and five non-economic activities in the daily life of a farmer.* (*P.U. Pre-University 1962*)

3. *What is Economics ? Discuss the utility of the study of Economics.* [See Secs. 1 and 8] (*Ajmer 1955 ; Delhi 1946*)

4. *Discuss the subject-matter of Economics ?* [See Sec. 3] (*Delhi Prep. 1962*)

5. *Define Economics and briefly discuss its scope.* (*Delhi Pre-Univ. 1961*)

6. *Is Economics a Science of Wealth ? Explain fully. Examine its relation to Political Science.* [See Secs. 1 and 7] (*J. & K. University 1958*)

Or

Is Economics merely a Science of Wealth ? In the light of your answer, discuss the nature and scope of Economics. (*Sardar Vallabhbhai Vidyapeeth 1959*)

7. *"Economics is the study of mankind in the ordinary business of life." Explain. What is the importance of the subject ?* (*Pb. Univ. H.S. 1962*)

8. *"Scarcity of means and multiplicity of wants are the two foundation-stones on which the structure of Economics rests." Elucidate.* [See Sec. 2] (*P.U. Pre-Univ. 1962*)

9. *Examine the following definitions of Economics :*

   (a) *Economics is a Science of Price.*

   (b) *"Economics is the study of man in the ordinary business of life."* (*Ajmer 1953 ; Calcutta 1953*)

   (c) *"Economics is the study of principles according to which limited means are used for the satisfaction of unlimited wants."* [See Sec. 1] (*P.U. 1943*).

10. Describe briefly the subject-matter of Economics. Is it correct to say that Economics is the study of man's activities in relation to wealth ?
(Pb. Univ. H.S. 1961)

11. "Economics cannot be a science because economists disagree." Comment. *(Agra 1939)*

(Complete unanimity is not essential in a science. There can be difference of opinion in every branch of knowledge. Economics is a science in spite of disagreement.) [See Sec. 5]

12. Fill in the blanks by using one of the words given in brackets:—

(i) Economics is primarily a study of —— *(man, wealth).*
(Pb. Univ. H.S. 1961)

(ii) Economics is the study of —— *in the ordinary business of life.* **(man wealth).**
(Pb. Univ. H.S. 1961 Suppt.)

(iii) Economics is a —— *(social, political, natural) Science.*

(iv) Man's wants are —— *(limited, unlimited) and means to satisfy wants are* —— *(unlimited, limited).*

(v) Economics is —— *(art, science).*

(vi) Economics is a —— *Science (positive, normative).*

(vii) Wants—efforts —— *(desire, satisfaction) form the subject-matter of Economics.*

(viii) Economic laws are not as certain as —— *(physical, moral, government) laws.*

(ix) Economic laws are statements of —— *(truths, facts, tendencies).*

(x) Morshall's definition of Economics has been criticised by —— *(Ricardo, Robbins, Ruskin, Carlyle).*

13. Why is Economics spoken of both as a Science and as an Art ?
(See Sec. 5)
(Delhi 1935)

14. What is an Economic Law ? Will you consider the following as Economic Law ? If not, why not ?

(a) Thou shall not steal.

(b) Those who violate Sec. 144 shall be prosecuted.

(c) The more a man has of a thing, the less he wants to have more of it. Give reasons for your answer.

[For a definition of an Economic Law, see Sec. 6]

(a) It is a law of Ethics and not of Economics.

(b) It is a Statute law and not an Economic Law.

(c) It is an Economic law called the Law of Diminishing Utility.

Or

What is an Economic Law ? Bring out the nature of Economic Laws by comparing them with (a) Physical Laws, (b) Moral Laws, (c) Legal Commands.
[See Sec. 6] *(P.U. 1956 Suppl.)*

Or

Discuss the nature of 'Economic Laws'. How do they differ from the laws of other sciences ?
(Delhi H.S. 1958)

15. Laws of Economics have been compared to the complex laws of tides rather than to the simple laws of gravitation. Why ? *(Patna 1945 ; Delhi 1955)*
[See Sec. 6]

Or

"Economic Laws are mere tendencies." Do you agree ? Give the characteristics of Economic Laws with illustrations from your own experience.
[See Sec. 6] *(P.U. 1953 Suppl.)*

Or

What are Economic Laws ? How do they differ from those of other sciences ? Illustrate your answer.
[See Sec. 6] *(J. & K. 1953)*

16. Economics is a social science. Discuss its kinship with other social sciences.
[See Secs. 4 and 7] *(P.U. 1953)*

Or

Why is Economics called a social science ? Discuss the relation of Economics with History, Politics and Ethics. (*P.U. 1957 ; J. & K. 1955*)

[See Secs. 4 and 7]

17. "Some people regard Economics as an aid to the solution of practical problems." To what extent do you agree with this view ?

(*P.U. 1955 ; U.P. Board 1953 ; Ajmer 1953*)

[See Secs. 5 and 8]

Or

What is Economics ? How far is its study useful in our everyday life ?

[See Secs. 1 and 8] (*P.U. 1956*)

Or

Define Economics. What is the importance of the study of Economics to (i) a businessman, (ii) a citizen of a democratic State, and (iii) a banker ?

[See Secs. 1 and 8] (*J. & K. 1956*)

Or

Discuss fully the importance of the study of Economics.

[See Sec. 8] (*Delhi H.S. 1960 ; Rajasthan Inter. 1960*)

18. What is the practical value of the study of Economics ?

(*Ajmer Board Inter. Arts 1960*)

19. It is said that the study of Economics does not enable one to earn money that he might have earned otherwise. Why should then one study Economics ? (*Delhi H.S. 1961*)

20. State the main branches into which the study of economic theory is divided and discuss their relations to each other. (*U.P. Board 1956 ; P.U. 1935*)

[See Secs. 9 and 10]

CHAPTER II

EVOLUTION OF ECONOMIC LIFE OF MAN

1. **Introduction**. Economic development has been a very slow and steady affair. Human society has passed through several well-marked stages in its economic development. The time taken in each stage and the various details of development must, of course, have been different from country to country. But we may imagine that almost every country has passed through almost the same stages. Economic organism was very simple and primitive at first but has become very complex today. The main stages through which the countries in general have passed are : hunting and fishing stage, pastoral, agricultural, and handicraft stage, domestic system and industrial stage.

2. **Hunting and Fishing Stage**. At the dawn of human history, it seems, man lived mostly on roots and fruits that he could gather from the jungle. His wants were very few. As a matter of fact, he did not require anything more than what animals needed to keep themselves alive. Gradually, he took to hunting. At first he used sticks or stones for the purpose. But the discovery of fire and the use of metals put into his hands sharper tools and weapons like knives and daggers. At this stage, he had no fixed place to live in nor did he own any immovable property. His only property was the tools he used. The hunting tribes were nomadic and moved from place to place. On the seashore or on the banks of rivers and lakes, they lived on fishing, for which purpose also, by stages, better and better implements came to be used. Man used to cover his body with leaves and barks of trees because cloth was not manufactured at that time. Life at this stage was uncertain and man lived literally from hand to mouth.

3. **Pastoral Stage.** The hunting and the fishing stages gradually gave place to the pastoral stage. By this time man had learnt the art of domesticating animals. He tamed wild animals and kept a number of them in his possession whom he could use for his food. At the hunting stage, he simply destroyed animals, but in the pastoral stage he reared them up. This improved his food position and made life less uncertain. The animals were not only a source of food supply, but they also provided materials for clothing and means of transport. At this stage, private property arose in the form of cattle. But still there was no fixed home. Man wandered from place to place in search of food and water for himself and for his cattle, and searched for suitable caves to live in. Instead of living alone men now began living in groups or tribes. With the rise of private property, inequalities of wealth also appeared, which at this stage were indicated by the difference in the number of cattle owned.

4. **Agricultural Stage.** Gradually man learnt the art of ploughing and sowing. He did not like to depend entirely on the wild products of the jungle. In order to make life more secure and stable, cultivation of land was started along with the rearing of cattle. People now became more settled. Besides property in the form of cattle, property also arose in the form of land. Division of labour in a very simple form was also introduced. Instead of wandering from place to place, people began now to live in small villages and built for themselves permanent homes. During this period, supplies of food both for man and for cattle were more assured and were available in much larger quantities. It was now possible to support a larger population on a given area of land. Each family had its private property in the form of houses and other movables, but land was generally held in common. The families were self-sufficient and did not need any outside assistance for meeting their essential requirements. Some bigger villages grew into towns and became marketing centres.

5. **Handicraft Stage.** For agriculture, tools and implements were needed. Some people took up carpentry and smithy to supply this need. A body of professional craftsmen and artisans came into existence. At first smiths and carpenters went round and supplied tools or repaired them at the farmer's houses. Gradually, these artisans set up small workshops of their own where they manufactured tools. They also owned lands which they cultivated themselves or got cultivated by farmers. These craftsmen organised themselves into craft guilds. These guilds not only looked after the welfare of the craftsmen, but also looked after production. They ensured proper quality of the products of their members and fixed their prices. Such guilds were to be found in Europe in the middle ages. In India also caste groups performed similar functions. When the markets extended to distant places, these craft guilds could not perform their functions efficiently. Abuse of the monopolistic power and privileges by the wealthier guilds also led to their decay. At this stage division of labour became further extended. Several new occupations were developed. Life became more settled but more inter-dependent. Production was still on a small scale and it was done mainly by the producer himself with the help of the members of his family in his own cottage. There was no system of hired labour. The system of production was based on cottage industries system. The system of private property became more widespread.

6. **Domestic System.** The handicraft stage yielded place to what has been called the domestic system. This is marked by the appearance of middlemen. Merchants supplied raw materials to artisans in their own homes, paid them wages at fixed rates and got the finished products which they themselves disposed of. The widening of the market was both a cause and an effect of the rise of this system. The workman became differentiated from the capitalist employer. He lost his economic independence, because he was at the mercy of the employer for everything. He simply became a wage-earner. All the profits went into the pocket of the commercial middlemen. Under the supervision of the capitalist middlemen,

division of labour beame further extended. The domestic system can still be found in India in most of the towns, although it is giving place to the factory system.

7. **Industrial Stage.** Then we come to the final stage, *viz.*, the industrial stage. This stage is the evolution of economic life of man started in the later part of 18th century in Europe. Side by side with cottage industries large-scale organised industries grew up. The world entered on an era of machinery, large-scale production and world-wide markets. The capitalists now set up factories of their own and got complete control of the industry. Workers were hired and made to work in factories instead of in their own cottages. They came under complete control of the factory owners. The workman, being too poor either to buy machinery or to buy raw materials, gave himself over to the rich capitalist at a fixed daily wage. Division of labour became more complex. No person could be self-sufficient. For everything one came to depend on one's fellow-beings living in distant lands. Institution of private property became firmly established. Big cities grew up. Cheap and efficient means of transport and communication were developed. Villages lost their self-sufficiency. Credit and banking also developed. Barter economy was, in course of time, replaced by money economy and now by credit economy. In the field of business organisation, joint stock companies were formed. Production came to be carried in anticipation of demand. Competition has now come to rule where custom held its sway. Market has become national and international in extent.

8. **At What Stage Is India ?** It is very difficult to place India in any particular stage of economic development. India is a sub-continent and we find all the various stages of economic development existing side by side. There are areas which have not yet become civilized. People there still live in a form of tribal organisation, where they live by primitive agriculture and on their cattle. At the other extreme are big cities like Bombay, Calcutta, Delhi, Kanpur, Lucknow, Allahabad, etc. where people live a most modern life. Nearly two-thirds of the Indian people depend on agriculture for their livelihood. But still we cannot put India in the agricultural stage, because we find that India has also many modern industries fully developed, *e.g.*, cotton mill industry, paper industry, cement industry, etc. Cottage industries exist side by side with modern large-scale industries. If we look at the means of transport, we shall find the bullock-cart on the road side by side with a modern car. The system of barter still exists in the remote villages, whereas an elaborate credit system functions in towns and cities.

Thus in India we find all stages side by side. We might say that India is changing from the old to the new, from the agricultural and the handicraft stage to the industrial stage. *India is in a state of transition.* It seems, however, that India has covered a very large portion of the journey already. With the advent of planning, the first two Five-Year Plans having been completed, it can be hoped that very soon we shall be in the midst of the "industrial stage". The Community Development Scheme mainly aims at making our rural

areas prosperous and enlightened ; we shall have an all-embracing development, in both the economic and the social fields. A very important place was given to industrial development in the Second Five-Year Plan. The Third Five-Year Plan will carry the process of development still further.

ECONOMIC SYSTEMS

The world has now become familiar with three main economic systems, *viz.*, (*i*) Capitalism, (*ii*) Socialism, and (*iii*) Fascism or Controlled Capitalism. Let us study these systems one by one.

9. **Capitalism.** This system prevails in India, England, America and over the rest of the world with the exception of Russia, the Eastern European countries and China. The special features of the system are the following :—

(*i*) *Private Property.* It is based on the institution of private property. People are permitted to acquire property and to pass it on to their heirs in inheritance. This explains why people are born unequal, economically speaking. These inequalities are further increased from generation to generation. The rich people tend to grow richer and the poor people tend to grow still poorer.

(*ii*) *Economic Freedom.* Under capitalism, people enjoy what is called economic freedom or freedom of enterprise. Economic freedom means three things : (*a*) People can take up any occupation they like ; (*b*) they are free to enter into any contract with their fellow-beings that they find profitable to themselves ; and (*c*) they can use their property in any manner they like. It should be remembered, however, that there is no absolute freedom in these respects. The governments impose restrictions on individual freedom in all countries in order to safeguard the general interests of the community.

(*iii*) *Ownership and Management of the Means of Production.* In a capitalist society, the instruments of production like the farms, factories and business are owned by private individuals. They are managed by them for their own exclusive benefit. The owners do not consider it their concern to look after the welfare of the community. Their own welfare is their primary concern. Thus all profits go into the pockets of private individuals. The capitalists enrich themselves at the expense of the society. The workers get only a small share out of the national income. Thus the gulf between the 'haves' (the few rich) and the 'have-nots' (the many poor) is indeed very wide.

(*iv*) *Class Conflict.* The 'haves' and the 'have-nots' are constantly fighting against one another. The society under capitalism is divided into two warring camps. The battle of labour *versus* capital is constantly going on. This prevents a capitalistic society from enjoying peace and tranquillity. There are constant threats of striks and lock-outs and the society may be thrown into confusion any moment.

(*v*) *Un-co-ordinated Nature.* Under capitalism, there is no machinery to bring about co-ordination in the various aspects of economic life. Business decisions are made by millions of indepen-

dent businessmen. There is no authority to control them and bring them into co-ordination with one another. That is why capitalism is said to work blindly and blunderingly.

(*vi*) *Control Goes With Risk.* Under capitalism, those who invest and risk capital are given the control of the business. This is necessary to ensure that decisions will be made wisely and cautiously. If capital belonged to some people and the authority to make decisions rested with others, it is obvious that decisions could not be taken with full sense of responsibility. There will be a lot of waste. The fear of loss compels people to make careful decisions.

(*vii*) *Dominant Role of the Entrepreneur.* In a capitalistic order of society, entrepreneur plays a very dominant role. The whole productive machinery is under his direction. It is he who decides what to produce, how much to produce, where to produce and where to sell. All other factors of production are hired and paid by the entrepreneur. The economic future and prosperity of a country depend on the wisdom and foresight with which its entrepreneurs are gifted.

Capitalism has placed at the disposal of society a rich variety and abundant supplies of useful commodities. The living standards have thus continuously been rising. New lines of production have been started by capitalists. The world has thus witnessed a series of useful inventions and discoveries. Since the capitalists run the risk of loss, the resources of the community are very carefully used and waste is avoided. The ablest businessmen get the handsomest rewards in the form of profits, whereas the incompetent businessmen have to suffer heavy losses. This is not only just but it also provides great stimulus for economic progress. The general mass of consumers control and determine the direction and volume of production. This looks democratic. Since control goes with risk, it ensures wise economic decisions. That capitalism has survived for centuries proves the soundness of the system.

But some evils of capitalism are also quite apparent. Under capitalism, competition rules and competition involves lot of waste. There are a dozen similar shops where two would suffice. Huge expenditure is incurred on advertisement simply to attract the customers' attention. If a fraction of this expenditure had been incurred in improving the quality of the products, it would have been of immense benefit to the society at large. Cut-throat competition confers no benefit on society. Legal, social and economic friction hampers free and proper competition. Inequality of wealth and income is the curse of capitalism. Frequently recurring trade cycles upset the economic system. There is no security for the mass of workers. Fear of unemployment hangs over their heads like Damocles' sword. Capitalism has divided the society into two warring camps—the 'haves' and the 'have-nots'. The masses are exploited for the benefit of the few rich. Known evils of capitalism provide sufficient ground for the spread of the socialist gospel.

10. **Socialism.** Socialism refers to that system under which the means of production like farms and factories are nationalised or socialised. They belong to the Government and not to the private

individuals. Profits from trade and industry go to the Government treasury and not into the pockets of private businessmen. Socialism means the end of private enterprise. All businesses are started and run by the State and the profits are utilised for the general welfare of the community.

It should, however, be remembered that the socialists do not want to abolish all private property. Private ownership only in the means of production is to be abolished. Under Communism, all private property will be abolished. It is also necessary to understand that socialism may not bring about economic equality. Although everybody works for the State, yet everybody is not paid at the same rate. Payment for work is made according to the nature of work and the ability of the worker. Although equal payment is not guaranteed, yet equality of opportunity is assured to all. The socialist States generally provide free education, free medical aid and everybody is guaranteed employment. Under capitalism, the resources are allocated according to the wishes of the consumers but under socialism the utilization of the resources of the community is decided by the Government. There is no consumers' sovereignty. Socialism is supposed to cure some of the glaring evils of capitalism but it would also suppress human personality and kill individual initiative. It would encourage mediocrity at the expense of genius. It is impossible to achieve equality. On the whole, however, it seems better to work for the establishment of socialistic pattern of society. That would promote general welfare instead of enriching the few.

11. **Fascism or Controlled Capitalism.** Fascism prevailed in Germany and Italy during the times of Hitler and Mussolini respectively. Under Fascism the State is all in all. We may say that, under socialism, the workers are supreme and under capitalism the capitalists hold the upper hand, but under Fascism, on the other hand, the State is supreme. Neither are the workers allowed to go on a strike nor are the employers permitted to close the factories. It is recognised that both strikes and lock-outs are harmful to the community in general, and the State, as guardian of the interests of the community, steps forward and keeps both labour and capital in check.

Fascism resembles capitalism in that the system of private enterprise and private investment prevails. Private property in the means of production is maintained. But the State exercises control over both wages and profits. Fascism resembles socialism in that the State is supreme in the economic sphere. Thus fascism is a sort of compromise between capitalism and socialism. Both socialism and fascism are ruled by dictators. Under both, in all trades and industries, bodies representing employers, employees and the fascist parties are established. These bodies co-ordinate all economic activities.

12. **Mixed Economy**. What may be called a new system, seems to be shaping itself. In England, which may be regarded as the home of capitalism and free enterprise, certain important industries have been nationalised. India is also following the example of

England. England nationalised the Bank of England and the steel industry (steel industry was later denationalised by Conservative Government). India has nationalised the Reserve Bank of India and the life insurance business. If the Government of India had not been handicapped by the lack of funds and trained personnel and if it had not been engrossed in mere urgent problems, India would also have nationalised certain industries. The Government of India declared in 1948 that for ten years there would be no nationalisation, which meant that when 10 years were over, steps towards nationalisation might be taken.

According to the new industrial policy of the Government of India announced in 1948 and later in 1956, some industries have been started under State control. These industries are owned by the Government. Such industries may be considered to constitute the socialised sector. In a mixed economy, the private sector (capitalism) and public sector (socialism) exist side by side. There are industries which are owned by private capitalists ; there are industries which are owned exclusively by the State, and there are industries in which the State and the private capitalists form partnerships. It seems very likely that mixed economy will make a rapid headway in the capitalistic countries.

It India, under the Five-Year Plans, the scope of State-operation, State-control and State-interference has been very much enlarged. The private sector will operate according to 'wider' policies laid down by the Government. Our mixed economy tends to assume the shape of democratic socialism ultimately. Under it both private and public sectors shall operate, but the private sector will work under the overall general control of the Government. India has decided to establish a socialistic pattern of society. For this purpose public sector is being expanded. Taxation of the rich and beneficent State activities for the poor and measures of social security and social welfare are some of the steps taken in this direction.

13. **Salient Features of a Modern Economy.**[1] We have briefly discussed the main types of economic systems prevalent in the world today, *viz.*, the capitalistic system or free market economy, the socialistic system or the centrally—controlled and planned economy and the mixed economy. Each of these systems has special features of its own. They are, however, all modern economies and as such have some common characteristics which may be described as the features of a modern economy. The following are some of the salient features of a modern economy :—

(i) *Division of Labour or Specialisation.* In the first place, a modern economy is a very complicated affair. The village self-sufficiency and isolation which characterised simple old economies is all gone and in its place we find co-operation and inter-dependence among a host of producers and consumers. The modern system is a system based on series of exchanges. This necessitates minute division

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1. See Hick's *Social Framework*, Chapter I, and Samuelson's *Economics, an Introductory Analysis*, Chapter III.

of labour, as if everybody says to another "you do this for me, and I will do that for you". Tho division of labour or specialisation is responsible for increasing the efficiency of the economic system. It is well known that a jack of all trades is a master of none. Specialisation has great technical advantage. Each person and each region can use to best advantage any peculiar differences in skill and resources. There is tremendous increase in productivity. Adam Smith's example of pin-making is classic. One man could at best make a few dozen imperfect pins per day, but with division of labour, a small number of persons can turn out hundreds of thousands of perfect pins a day. Specialisation leads to mechanisation and the use of labour-saving tools and equipment.

(*ii*) *Extensive Use of Capital.* Another characteristic feature of a modern economy is the use of vast amounts of capital, elaborate machine equipment, big factories, tools and plants, etc. A modern economic system has a huge stock of instruments of production. Consequently the production, instead of being simple and direct, has become indirect and roundabout. There is a long distance between an individual producer and the final consumer. The production process is like the egg-chicken-egg-chicken-egg sequence. When the circular path of production is well-established, the whole thing looks simple and automatic. However, the community has to forego immediate consumption and divert resources from current consumption and production to the making of tools, machines and equipment which will bear fruit only after some time. Thus saving is absolutely necessary for capital formation. One necessary consequence of the extensive use of capital equipment is that the bulk of economic activity is directed towards the future. The bulk of current economic consumption is the result of past efforts. Hence "it is the primary role of current productive efforts to produce for the future so as to repay the past for present consumption." There is doubt that the extensive use of capital goods in an economy has meant a tremendous increase in its productive capacity.

(*iii*) *Extensive Use of Money.* Still another outstanding feature of a modern economy is the extensive use of money. Although the ultimate objective of a worker or a producer is to get goods and services for himself and his family, but the immediate motive is to earn money. The factory owners and other employers earn money themselves and pay their workers in the form of money. It is a matter of great convenience for all concerned. A person who comes to acquire money, can spend it at his convenience and in amounts as it suits his needs. Money serves as a very convenient medium of exchange, otherwise goods will have to pass from one person to another unnecessarily. Thus the use of money facilitates the working of the economic system and increases the flexibility of the system of exchanges to an extraordinary extent. In the absence of money, the present division of labour would create impossible situations. The inconveniences of the barter system (*i.e.*, exchange of goods direct with goods without use of money) are well-known. A modern economy cannot work on the barter basis. But where there are advantages in the use of money for a modern economy, the economic

system also develops some monetary diseases breeding booms and depressions.

(*iv*) *Role of the Government.* Finally, in a modern economy, the Government plays an all-pervading role. Even in democratic countries, the sphere of government activity has considerably widened, since the people have not been satisfied with perfectly unrestrained market system. In this system some individuals receive excessive incomes whereas the masses receive inadequate incomes. Hence the Government steps in to supplement the real or money incomes of poor masses. It provides free or cheap education and medical aid and other amenities. Moreover, the Government provides collective services like electricity, water and transport. Government expenditure provides employment. "Together with Government expenditure and taxation, the decrees of government are hardly less important than the price system itself in determining the economic fate of the nation. The Government plays a very important part in removing the causes of acute and chronic trade cycles. The Government uses its constitutional fiscal and monetary powers to make sure that private enterprise functions satisfactorily and maintains a steady level of high employment and rising productivity."

These are a few outstanding features of a modern economy—extensive division of labour, extensive use of capital, extensive use of money and the dominant role of the State.

14. **The Functioning of the Economic System.** In the foregoing chapter we have defined Economics and have discussed its nature and scope. Broadly speaking, Economics is a study of the economic system under which people live and work. An economic system refers to an institutional arrangement whereby natural and human resources of an economy co-operate to produce goods and services. The working of an economic system thus involves the following activities :

To begin with, a decision has to be taken regarding the things to be produced in an economy in a certain time period. Under the free-enterprise system, where markets exist for goods and services, this is decided through the *price mechanism.* If consumers want motor cars more than bicycles, the prices of motor cars in the market will rise relatively to that of bicycles. This is a signal for the producers to shift resources from the production of bicycles to that of motor cars. Under a free-enterprise system, producers produce goods for sale and their aim is to maximise their profits. If they do not heed the price signals and persist in producing more bicycles than motor cars, they will incur losses. That is why it is sometimes said that under capitalism consumer is the king ; hence the importance of the study of consumer demand.

In a collectivist and centrally planned economy, like that of the Soviet Union, the function of deciding which things to produce belongs to the central planning authority, though the authority might also take into consideration the consumers' wishes as expressed through the relative strength of queues at the various shopping windows.

Once it has been decided what things to produce, the next thing to be done is the decision regarding how to produce these things in the most efficient way. Since from the technical point of view, there are often more than one methods of production known to us, the problem is that of selecting the one which minimises the costs of production. This is the problem of *resource-allocation* or *economic efficiency*. Under the capitalist system, production is for the market rather than for self-consumption and the aim of the producers is to maximise their profits. Therefore, it is the interest of producers to adopt such methods of production as minimise costs.

The next function of the economic system is to *distribute* the amount of goods and services produced among the factors of production. Production being the joint result of the co-operation of factors of production, these factors of production are entitled to their respective rewards. The economic system determines these rewards, Besides, every economic system provides for its *growth and change* so as to incorporate the latest advances in technical knowledge. In the capitalist system this is done mainly by ploughing back a part of profits of the enterprise in further expansion of the business. Thus a part of production is devoted not to immediate consumption but for investment and capital formation.

QUESTIONS

1. *Write a short account of evolution of economic life.* [See Secs. 2, 7] *(Delhi 1953, '55)*

2. *State the stages of Economic Development and give the characteristics of the present economic system.* [See Secs. 2, 7] *(P.U. 1956)*

3. *What are the main landmarks in the development of economic life in human society ?* *(Ajmer Board Inter Arts 1960)*

Or

What has been the development of economic life through various stages, from the earliest times to the modern times ? Through what stages is India passing now ? *(Rajasthan H.S. 1960)*

4. *Name the different Economic systems and indicate the special features of each.* [See Secs. 9-12]

5. *Describe briefly the chief characteristics of the modern capitalistic system.* *(Delhi Prep. 1962)*

6. *Distinguish between Economics and Economic System. Give the main features of any economic system with which you may be familiar* *(P.U. 1949)*

[Economics is a science which studies human behaviour as a relationship between ends and scarce means which have alternative uses. But economic system refers to an arrangement in which economic activities are organised. We are familiar with capitalism.) [See Sec. 19]

7. *What do you understand by capitalistic system ? Briefly explain its advantages and disadvantages.* [See Sec. 9] *(Delhi H.S. 1959)*

8. *What do you understand by mixed economy ? Do you think that this system will suit India best ? Give reasons.*

9. *What are the essential features of a modern economy ?*

10. *Briefly describe how an economic system functions.*

CHAPTER III

GOODS—UTILITY—VALUE—WEALTH

The riddle of high utility and low value, and low utility but high value.

1. **Introduction**. In this chapter, we propose to explain some terms which are frequently used in Economics. This is essential not only for clear thinking but also for a correct understanding of the language used in books on Economics. The terms used in Economics are also used in the ordinary speech. But in Economics they are used in a sense different from that in which they are used in ordinary speech. We shall make it clear here in what sense they are used in Economics.

GOODS

2. **Goods**. We know that human wants are the starting point of all economic activity. Man has wants which he must satisfy. There are two things with which he can satisfy these wants—goods and services. Goods mean the commodities that we use, and services refer to the work that a person may do. Services are not something tangible or concrete. The help of a tutor, the advice of a lawyer or a doctor, the work done by railways or domestic servants—these are all services. Goods or commodities, on the other hand, are almost always concrete, material and tangible, *e.g.*, land, houses, furniture, etc. They all satisfy a human want. **Anything that can satisfy a human want is called a 'good' in Economics.**

3. **Kinds of Goods :** (*a*) *Economic Goods* and *Free Goods*. The most important classification of goods is as *free goods* and *economic goods*.

Free goods are those that exist in such plenty that you can have as much of them as you like without any payment, *e.g.*, air, sunshine, etc. They are free gifts of nature. Man has not made them nor has man to pay for them to get them.

Economic goods, on the other hand, are those goods which are scarce and can be had only at a price. Most of the things that a man needs to satisfy his wants fall in this group. They are limited in quantity and are man-made things. Payment has to be made in order to get them.

In Economics we are concerned only with economic goods for only in their case the question of valuation or payment arises. Economic goods mean wealth and it is with wealth that Economics deals. Thus there would have been no science of Economics if all goods had been free.

The distinction between economic goods and free goods is not permanent. A good may be a free good today and become an econo-

mic good tomorrow, or the same thing may be free good under certain conditions and an economic good under others. For instance air is not a free good in a deep mine ; water in a city is an economic good, and not a free good, because a price has to be paid for it.

As population increases, goods which were free before become economic goods (*i.e.*, goods for which a price is paid) later. Increase in economic goods is synonymous with increase in wealth. But that does not necessarily mean that the people are better off. Here is a paradox—an increase in wealth makes the people worse off than before. "*Indeed it is conceivable that a country's wealth might increase, yet its welfare actually diminishes*".—(*Silverman*). This is so because many things, like fuel and water, for which the primitive man had to pay nothing, the modern man cannot get without payment. Even those things which were free goods before have been included in the category of economic goods or wealth and have become scarce. And human welfare is not increased by scarcity. Hence increase in economic goods does not necessarily mean increase in economic welfare. It might mean the opposite.

(*b*) *Consumers' Goods and Producers' Goods.* Goods can also be classified as consumers' goods and producers' goods.

Consumer's Goods are those goods which yield satisfaction directly. They are used by the consumers to satisfy their wants, *e.g.*, food, clothing, pen, ink, etc. They are also called *goods of the First Order.*

Producers' Goods are those goods which help us to produce other goods, *e.g.*, tools, machines, etc. They are also called *goods of the Second Order.* They satisfy our wants only indirectly, because they produce goods which in turn satisfy our wants directly.

(*c*) *Material and non-Material Goods.* Another classification of goods is between material and non-material goods.

The examples of material goods are land, buildings, furniture, cash, books, etc.

Non-material goods are various kinds of services. They are not tangible. But some of them are scarce and can be transferred. The goodwill of a business falls in this category. It can be bought and sold.

(*d*) *Transferable and Non-transferable Goods.* Most material goods can change their ownership. In such cases, a bodily transfer takes place and the goods may be moved from one place to another. In some cases, however, actual physical transfer cannot take place, *e.g.*, in the case of land. In this case, no actual movement is possible, only ownership is changed.

Non-transferable goods like skill, ability, intelligence, etc., which are personal qualities, cannot be transferred—only their service can be used by others.

(*e*) *Personal or Internal, and Impersonal or External Goods.* Personal goods refer to the personal qualities of a person ; *e.g.*, his ability and skill. They are non-material and exist inside him. They are *what he is* and not what he has.

Impersonal goods are those that are not personal. They are external and lie outside a person. They are *what he has*, *e.g.*, land, houses, etc.

(*f*) *Private and Public Goods.* Private goods are the property of private individuals ; *e.g.*, land or buildings owned by them exclusively and not shared with others.

Public goods are those which are common to all and are owned by society collectively ; *e.g.*, a town hall, a college or a hospital.

(*g*) Goods can also be classified as *necessaries*, *comforts* and *luxuries*. We shall discuss them in the next chapter.

From the above classification it is clear that the same 'good' can fall in several categories. Land, for instance, is a material good; it is transferable and may also be private or public good.

GOODS AND THEIR CLASSIFICATION

GOODS

(*i.e.*, things which satisfy human wants)

- Externa
  - Material
    - Transferable : Clothes, Pencils, Bread, Money, Land, Corn, (*i.e.*, all economic goods). They are scarce, transferable and possess utility.
    - Non-transferable : Motor-licence, Birth certificate, Principal's testimonial, Insurance Policy.
  - Non-material
    - Transferable : Domestic services, Goodwill of business, Patent rights, Copyrights.
    - Non-transferable : Light Friendship, Beauties of nature
- Internal
  - Personal and Non-transferable : Skill, Ability, Honesty, Health, Wisdom, Taste for beauty.

UTILITY

4. **Meaning of Utility.** We have seen that goods satisfy human wants. **This want-satisfying quality in a good is called Utility**. Utility means the power to satisfy want. In order to find out whether a good possesses utility or not, we have simply to ask ourselves the question : 'Does it satisfy a human want ?' If so, it has utility, otherwise not. If a person is prepared to pay for it, it is clear that he thinks that it will satisfy his want. For him such a commodity will possess utility. Utility is that quality in a commodity by virtue of which it is capable of satisfying a human want. Air, water, etc. (free goods) and food, land, house, cash (economic goods) satisfy people's wants, and as such they possess utility.

Utility is not the same thing as usefulness. A commodity may satisfy a human want, but may not be useful. On the other hand, it may actually be injurious, *e.g.*, opium and poison. But, because they satisfy a human want and some people are prepared to pay for

them, we say that they possess utility, even though their consumption is injurious. Similarly, a man may have a picture which is indecent and vulgar. But if another person is prepared to pay a price for it, we have to admit, as economists, that the picture possesses utility. *The term 'utility', therefore, as used in Economics, has no ethical or moral significance.* A thing may be good or it may be bad, but if it satisfies a human want, we shall say it possesses utility. It is not on moral considerations that the economists decide whether a commodity has utility or not.

Utility is not synonymous with pleasure. A good, which possesses utility, may not give pleasure when consumed, *e.g.*, quinine. But in spite of its bitter taste quinine is purchased and consumed, for it does fulfil a need. Hence utility is not the same thing as pleasure.

Utility does not mean satisfaction. Utility is the quality in a good by virtue of which it gives us satisfaction and it is not itself satisfaction. Satisfaction is what we get, and the utility is in the thing. To say that a mango *gives* utility is incorrect. We should say it *possesses* utility or it *gives* satisfaction. A thing *possesses* utility but it *gives* satisfaction.

Utility is Subjective. No commodity possesses utility in itself independent of the consumer. It is the consumer's mind which gives it utility. A blind man cannot see a picture ; it has no utility for him. A cigarette has no utility for a non-smoker. Utility varies from individual to individual. Even for the same individual, a commodity may possess different utilities at different times or in different places. A warm suit has greater utility in winter than in summer. A raincoat has greater utility in the hills during the rainy season. It all depends on a man's circumstances. That is why we say that utility is subjective. It depends on a man's mind rather than on the thing itself.

Moreover, the same thing may possess different utilities for different purposes. For example, water has different utilities when used for drinking, bathing or washing. Further, utility changes with the advancement of knowledge. We may discover new uses for a commodity. Many by-products such as molasses in case of sugar, which used to be thrown away as useless, are being profitably used now.

A change in the form of a commodity may bring about a change in its utility. A log of wood has not the same utility as a table into which it has been converted.

A good may have different utilities in different hands or when there is a change in the ownership. When a rich man deposits his idle money in the bank, it can be loaned out to some one in need of it. It thus comes to have utility that it did not possess before. In the same manner, when a cultivator buys land from a non-cultivating owner, its utility increases. A watch has no utility in the hands of an ignorant and illiterate person who cannot read it but has a great deal of utility for a student. From all this discussion we come to the conclusion that the *utility of an article varies with the change in conditions and circumstances.*

5. **Can We Measure Utility ?** The utility that a commodity possesses for a person depends on the importance that he attaches to it. A book possesses greater utility for a student than for an illiterate person. Utility, therefore, reflects the state of mind of a person. Can we measure this state of mind ? It looks as if we cannot. How can we peep into, or enter into a man's mind, to see how much utility a commodity possesses for him ? But we have got one measuring rod—money—which helps us here. When we are prepared to pay Rs. 10 for a fountain pen, it is quite clear that we think it worth Rs. 10. In other words, its utility to us is equal to Rs. 10. The utility has thus been measured by money.

6. **Forms of Utility.** The main forms of utility are : (*a*) *Form Utility*. By changing the form of an article, we can give it greater utility, *e.g.*, the transformation of a log of wood into a piece of furniture. This is called Form Utility.

(*b*) *Place Utility.* Utility can also be increased by transporting a good from one place to another. When timber is brought to the market, it comes to have much greater utility than it had in the forest. That is Place Utility.

(*c*) *Time Utility.* By storing a commodity and selling it at a time of scarcity, we can give it greater utility. This is Time Utility.

VALUE

7. **Meaning of Value.** 'Value' is another term which has to be frequently used in Economics but which creates a lot of confusion. In Economics, we do not use it in the same sense as we use it in our ordinary speech. We often say education has great value, or that fresh air is very valuable. Here the term 'value' is used in the sense of usefulness. This is *value-in-use* for which economists use the term 'utility'. In Economics, the term 'value' is not used in this sense, that is, in the sense of value-in-use ; for which we use the term 'utility'.

Economists use the term 'value' in the sense of value-in-exchange. Value of a commodity refers to the goods that can be obtained in exchange for it. We cannot exchange fresh air for anything ; its value in the economic sense is, therefore, zero even though it is otherwise so valuable—nay, indispensable. A pencil, on the other hand, has value because it can be exchanged for something ; we may be able to get some ink or piece of paper in exchange for it.

The value of a commodity, thus, means the commodities or services that we can get in return for it ; it is, in short, its purchasing power in terms of other commodities and services ; it is its power of commanding other things in exchange.

It is clear, then, that in order to have value in the market a commodity must not be a free good, for nobody will give anything in exchange for a free good. One can have as much of it as one likes without paying anything. Only economic goods can have value in the economic sense. *Three qualifications are essential for a good before it can have value :*

(*a*) *It must possess utility,*

(*b*) *It must be scarce, and*

(c) *It must be transferable or marketable.*

All these three qualities are essential *together*. In the absence of any ane of these qualities, a good will have no value at all. Nobody will be prepared to give anything in exchange for a commodity which is not scarce or which does not possess any utility or which is not transferable. For example, air possesses utility, but it is not scarce. Rotten eggs may be scarce ; but since they possess no utility, they have no value. Hence it can have no value in the economic sense. A book has utility, it is also scarce and transferable. It has, therefore, value in the economic sense.

8. **Price.** *Value is not the same thing as price. When value is expressed in terms of money, it is called price.* In pre-historic times, people did not know the use of money. They exchanged goods for other goods. This system is called barter. In those days, the price of a commodity meant the commodity or commodities for which it could be exchanged. In other words, price and value could be used as synonyms.

In modern times, however, goods are ordinarily exchanged for money. Therefore, the price of a commodity today means its money-value, *i.e.*, the price it commands in the market. 'Price' expresses value in terms of money.

9. **Value is Relative.** Since 'value' in Economics means value-in-exchange, it must be *relative*. It cannot be *absolute*. It is impossible to speak of the value of a commodity in an absolute manner independently of something else. For example, to say that the value of a fountain pen is great gives an idea of its utility only. To talk of the value of a fountain pen, in the economic sense, we must relate it to the other things which we can get in exchange for it. Value is always in terms of something else.

Value equates certain commodities, *i.e.*, a fountain pen may fetch 5 dozen pencils in exchange ; it is equal to 5 dozen pencils. It expresses relationship between the two commodities ; it relates one to the other. Hence value is relative. A thing does not stand alone. When we are thinking of its value, we always think of something else, in terms of which its value can be expressed whether it is money or any other commodity.

Value thus is relative and as such represents an equation between two commodities. It is very easy to see that both sides of the equation cannot rise *at the same time*. Take the previous example : one fountain pen=5 doz. pencils. If the fountain pen increases in value, it will buy more pencils than before, which means that pencils have gone down in value. On the other hand, if pencils become more valuable, less than 5 dozen will be needed to buy a fountain pen. This means that the value of the fountain pen has gone down. Thus if one thing goes up, the other thing comes down in value. *Both* cannot go up or come down *at the same time*. **Thus there cannot be a general rise or fall in** *values.*

But there can be a general rise or fall in prices. We see such a rise in prices nowadays. The price of everything has gone up at the same time. But here we are looking at one side of the equation only, the goods side, and not the other, the money side. *Goods have*

gone up in value, while money has come down in value. Thus all *prices* have risen, but all *values* have not risen.

Hence we can conclude that there can be a *general* rise in prices but there connot be a *general* rise in values.

WEALTH

10. **Meaning of Wealth.** Wealth is another term which requires clear understanding. The term 'Wealth' causes a lot of confusion in the mind of a beginner in the study of Economics. This is due to the fact that 'Wealth' in Economics is used in a sense different from its use in the ordinary speech.

In ordinary language, 'Wealth' conveys an idea of prosperity and abundance ; it means riches, property, etc. A man of wealth, as ordinarily understood, is a rich man, *i.e.*, one who is prosperous. But in Economics every man, even the poorest of the poor, possesses some wealth, as we shall see presently. Further, in the ordinary speech, by 'Wealth' people mean money. But in Economics money is not the only form of wealth ; anything which has value is wealth in Economics.

In Economics the term 'Wealth' is synonymous with economic goods. Economic goods are scarce and command a price in the market.

But scarcity alone does not make a 'good' wealth. If it is a useless thing, a rotten egg, nobody will pay anything for it ; nobody would like to have it ; it will not be wealth. A 'good' cannot be wealth by itself apart from man and his wants. It is wealth only if man needs it and uses it. Therefore, besides being scarce, a commodity must have utility ; it may not be necessarily useful. Even a harmful thing will be regarded as wealth provided it possesses utility and can satisfy a want. Further, the idea of ownership is also present in wealth. This means that unless an article can be owned and is capable of being transferred from one owner to another, it cannot be regarded as wealth.

Thus there are three attributes of wealth, as in the case of value : Utility, Scarcity and Transferability or Marketability. If you want to find out whether a good is wealth or not, ask yourself these three questions :—

(1) Can it satisfy a human want ?

(2) Is it scarce ?

(3) Is it transferable ?

If the answer to *all* these three questions is in the affirmative, it is wealth. A negative answer to any one of these questions will exclude it from the category of wealth. For instance, if a thing possesses utility but is not scarce and *vice versa*, it is not wealth. It must be both scarce and useful if it is to be called wealth.

Applying these tests, we find that money, land, buildings, furniture, machinery, clothes, gold, silver, goodwill of a business, in fact all goods, material and non-material, which are objects of human desire, which are scarce, and which can be bought and sold in the market, are wealth.

Documents of title like bills of exchange, bills of lading, documents of property and insurance policies (up to surrender value) are also wealth. They are valuable because they represent titles to property. Hence they are sometimes called **Representative Wealth.**

But free goods like fresh air, water and sunshine are not wealth unless they become scarce as in big cities.

Personal qualities like honesty, skill, ability and intelligence too are not wealth. They are a source of wealth but are not wealth in themselves, because they are not transferable. A surgeon's skill is not wealth though it brings him wealth.

In the same manner, the oceans, the Gulf Stream, the sun, the moon, etc., are not wealth because they cannot be owned.

Human beings are not wealth, unless they happen to be slaves. As such they are the property of their master and can be transferred.

11. **Money and Wealth.** Money is wealth as defined above —it possesses utility ; it is scarce and it is transferable. **All money is, therefore, wealth, but all wealth is not money** as wealth is understood in the ordinary speech. Wealth takes so many forms ; it consists of all kinds of property and money is only one kind of wealth.

12. **Wealth and Income.** Income is what wealth yields. A man may possess a lot of immovable property. It may be worth Rs. 2 lakhs. This is his wealth. But how much does he get from it in a year ? Perhaps Rs. 10,000. This is income. **Wealth is a fund and income a flow.**

13. **Wealth and Welfare.** Wealth and welfare are very closely inter-related. Wealth is the means and welfare the end. Economics studies wealth and not welfare because there is no general agreement on what welfare means. The idea of welfare varies from individual to individual, from time to time and from country to country. Wealth, on the other hand, has a definite meaning. Economics makes wealth as its subject-matter because wealth happens to be a convenient measure of human motives. Wealth is not studied for its own sake.

Wealth in general promotes welfare. If a man happens to be a rich man, he will be able to live well himself and may also help others. Wealth thus promotes welfare. **Wealth is the means and welfare the end.** There is no doubt that wealth can be used to make people happier and more comfortable. Poverty is a great curse and root of many evils. But wealth promotes mental, moral and physical well-being of the people.

But what is regarded as wealth by economists may not necessarily be good and useful. It may actually be harmful, *e.g.*, a bad book, a poisonous drug, opium, wine, tobacco, etc. These are regarded as wealth, but their use does not promote human welfare. Wealth, as understood in Economics, has nothing to do with usefulness. No ethical or moral meaning is attached to it.

Further, as has already been mentioned, *increase in wealth does not necessarily mean an increase in welfare.* It only means that the number of economic goods, which have become the property of

people, has increased, whereas the number of free goods like fresh air and water, which are highly desirable and useful, has decreased. It cannot be claimed that this state of affairs has promoted the welfare of society.

Thus wealth and welfare are not synonymous under all circumstances. But on the whole, wealth is a powerful means of promoting human welfare.

14. **Classification of Wealth.** Wealth can be classified as follows :

(*i*) *Individual Wealth.* The wealth of an individual consists of (*a*) his material possessions or property like cash, land, buildings, livestock, furniture, stocks and shares, etc. ; (*b*) non-material goods like the goodwill of his business which commands a price in the market. But we do not include in wealth his personal qualities like skill and intelligence, for they are not saleable. We also deduct the money he has borrowed and has to pay back.

(*ii*) *Personal Wealth.* Personal qualities like skill, ability and intelligence are not wealth as explained above. They are given only the courtesy title of personal wealth.

(*iii*) *Social or Communal Wealth.* It consists of State and Municipal property, that is, things owned by a society or community in common. They include, among other things, the assembly chamber, the secretariat buildings, roads, gardens, State railways, public libraries, museums, etc.

(*iv*) *National Wealth.* The term 'national wealth' may be used in two senses : a narrow sense and a wide sense. Narrowly speaking, it consists of the aggregate wealth of all citizens, excluding the debts due to one another. Here we use the term wealth as defined above.

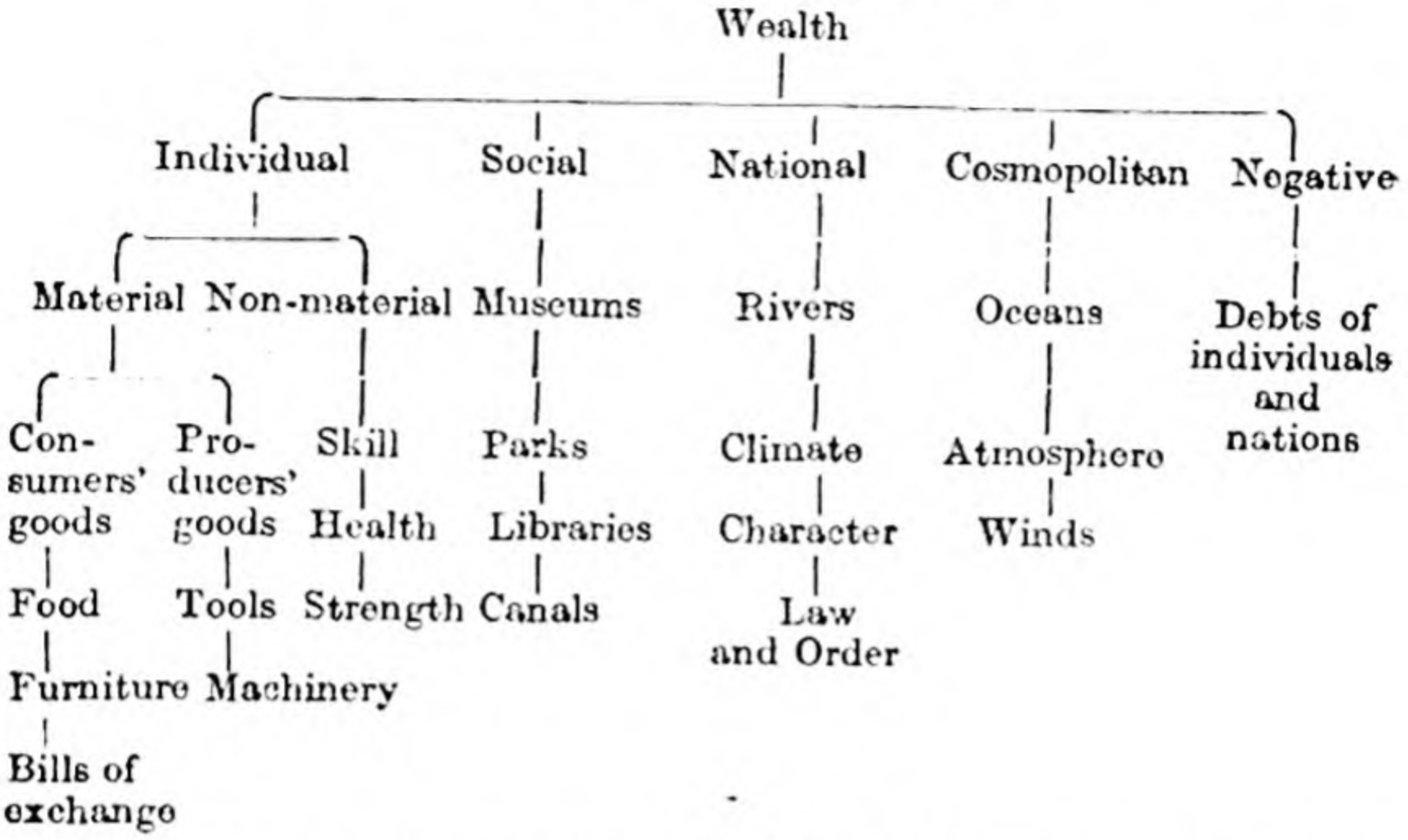
Broadly speaking, however, national wealth may also include rivers, mountains, a good climate, good government, high character of the people, etc. They are valuable national assets. But in this sense the meaning of 'wealth' is too wide to become synonymous with 'economic goods'. Such things cannot be called wealth in the strict economic sense.

(*v*) *Cosmopolitan Wealth.* It is the wealth of the whole world, a sum-total of the wealth of all nations. It includes the wealth of all countries in the strict economic sense as well as rivers, mountains and all other natural resources which are regarded as wealth in the wider sense.

(*vi*) *Negative Wealth.* This refers to debts owned by individuals or States. If something is a nuisance, say wild pigs or stray cattle damaging the crops, it may also be regarded as negative wealth. Our sugar factories sometime back had to incur a lot of expense in getting molasses removed from their premises ; in those circumstances molasses were negative wealth.

The various forms of wealth can be represented as under :—

FORMS OF WEALTH



Having made ourselves familiar with some of the important terms used in Economics, we shall now proceed with a detailed study of the different departments of Economics, *viz.*, Consumption, Production, Exchange, Distribution and Public Finance, one by one.

Equilibrium. In modern economic analysis, the word equilibrium occurs very frequently. In fact, some people call Economics an equilibrium analysis. Equilibrium means a state of balance. When opposite forces exert pressure on an object in an equal measure, the object reaches a state of equilibrium. If a piece of stone tied to a string is dangled in the air, it comes to rest after a few oscillations. It has attained an equilibrium position. Same thing happens in the realm of Economics. If a change occurs in demand/supply or price, such forces will be let loose, which will restore the equilibrium. Suppose price rises, demand will decrease and supply will increase till the original price is restored.

The position of equilibrium is supposed to be the best possible position so that there is no inducement to change. A consumer is said to be in equilibrium when he so spends his income that he derives from it the maximum satisfaction so that he will have no inducement to make any change in his purchases. A producer or a firm is in equilibrium when it makes the maximum aggregate profit. This will happen when marginal revenue is equal to marginal cost. An industry is in equilibrium when it has neither a tendency to expand nor a tendency to contract ; new firms have no inducement to enter it nor old firms to leave it. This will happen when the marginal firms earn just normal profits, neither more nor less. These are instances of *partial* or *particular equilibrium.* General equilibrium, on the other hand, means, when the entire economy is in a state of balances or properly adjusted. This happens when all the organisms (*i.e.*, firms, etc.) functioning in the economy are in a state of equilibrium. In other words, each firm and each industry are in a state of equilibrium with respect both to prices and output.

WHAT THIS CHAPTER HAS TAUGHT YOU

Goods. All things that can satisfy human wants are called goods.

Kinds of Goods. *Free Goods, e.g.*, air, sunshine, water, etc. They are free gifts of nature.

Economic goods, e.g., money, land, buildings, furniture, cloth, etc. They are limited in quantity and can be had on payment only.

The distinction between these two is not permanent. A free good under certain circumstances may become an economic good under others.

An increase in economic goods does not necessarily mean an increase in human welfare.

Consumers' Goods, e.g., food, clothing, houses, etc.

Producers' Goods, e.g., tools, appliances, machinery, etc.

Material Goods, e.g., cash, clothes, houses, furniture, etc.

Non-material Goods, e.g., goodwill of a business.

Transferable Goods, i.e., those which can be transferred or sold, *e.g.*, land houses, motor cars, tools, etc.

Non-transferable Goods, e.g., personal qualities like skill.

Personal Goods, e.g., skill, ability, intelligence, etc.

Impersonal Goods, i.e., any form of man's material property.

Private Goods, i.e., those which are the private property of individuals.

Public Goods, e.g., Government or Municipal property.

Utility. It is the want-satisfying power of a commodity. Utility is not the same thing as usefulness. A thing may be injurious but may still possess utility.

Utility is not the same thing as pleasure. A thing may be bitter in taste like quinine, but may still possess utility.

Utility does not mean satisfaction. Utility is possessed by a thing out of which we get satisfaction.

Utility is subjective. It is different for each individual. A cigarette has utility for a smoker and not for a non-smoker.

Utility also varies with a change in place, time, form and ownership

How to measure utility. Although utility is subjective and is in the mind of the consumer, yet it can be measured by the amount of money he is prepared to pay for the thing.

Forms of Utility. Form Utility, Place Utility and Time Utility.

Value. It means value-in-exchange and not value-in-use. The value of a commodity means the other commodities or services that it can command in exchange for itself.

In order to have value, a commodity must possess (*i*) utility, (*ii*) must be scarce, and (*iii*) must be transferable.

Price. Value expressed in terms of money is called price.

Value is Relative. It expresses relationship between two commodities. It is always in terms of something else.

There cannot be a general rise in values, though there can be a general rise in prices. This is so because value is relative. If one thing goes up, the other must come down. All prices can go up because it means that the value or purchasing power of money has come down.

Wealth. It is synonymous with economic goods. The three attributes of wealth are :—

(*i*) Utility, (*ii*) Scarcity, and (*iii*) Transferability. Free goods are not wealth ; personal qualities too are not wealth either.

Money and Wealth. All money is wealth but all wealth is not money.

Wealth and Income. Wealth is a fund, income a flow.

Wealth and Welfare. Wealth generally promotes welfare. But it may not always do so. Many harmful things are also regarded as wealth. The two are not synonymous.

Classification of Wealth :

Individual Wealth. It is the wealth of an individual ; personal qualities, *e.g.*, intelligence and his debts are excluded.

Personal Wealth, e.g., skill, intelligence, etc.

Social Wealth, e.g., Government and Municipal property.

National Wealth is wealth of the whole nation ; it is the sum-total of the wealth of all individuals. In a wider sense, it includes climate, mountains rivers, etc.

Cosmopolitan Wealth is the wealth of the whole world.

Negative Wealth, e.g., debts or something which is a nuisance.

Equilibrium. It is a state of balance. It is a position representing maximum satisfaction for the individual consumer or maximum profit for the individual entrepreneur. The equilibrium of the firm is when marginal revenue is equal to marginal cost. The industry is in equilibrium when there is no inducement to new firms to come in or for any old firms to leave it.

CAN YOU ANSWER THE FOLLOWING QUESTIONS ?

1. *In what sense is the term 'goods' used in Economics ? Distinguish between (a) economic goods and free goods, (b) material goods and non-material goods.* [See Secs. 2 and 3.]

2. *Define the term 'utility' as used in Economics. Does a harmful thing like alcohol possess utility ? Give reasons.* [See Sec. 4]

3. *What do you mean by Utility ? Distinguish between :—*

   (a) *Utility and Usefulness.*
   (b) *Utility and Satisfaction.* } *(P.U. Pre Univ. 1962)*
   (c) *Utility and Pleasure.* [See Sec. 4]

4. *What is meant by 'value' in Economics ? Distinguish between value-in-exchange and value-in-use and price. Explain why coal, which possesses infinitely greater utility than diamonds, has less value ?* [See Sec. 7]

Or

Distinguish between value-in-use and value-in-exchange. Must a commodity have value-in-use to have value-in-exchange ? *(Utkal Inter. Arts 1960 Sept.)*

(Value does not depend on utility alone. It also depends on scarcity. Diamonds are rare as compared with coal, hence of much greater value.)

5. *Explain the terms—*

   (*i*) *Value-in-use.*
   (*ii*) *Value-in-exchange.*
   (*iii*) *Price.* (See Secs. 4, 7 and 8.)

6. *What do you understand by the term 'value' ? Can you see any difference in the use of this term in the following sentences :—*

   (*a*) *There is nothing more valuable than a good friend.*
   (*b*) *The value of air for human life is immense.*
   (*c*) *Values have been rising recently due to war.*
   (*d*) *Gold has more value than silver.* [For definition of value See Sec. 7.]

[(*a*) Valuable here means 'dear' or 'worth having'. The term value is not used here in the economic sense.
(*b*) Here value means value-in-use, *i.e.*, utility.
(*c*) Here value is used for 'price'.
(*d*) This is the proper use of the term, it means value-in-exchange.]

7. *What is understood by (a) 'value' and (b) price ? Can there be a general rise or fall of values ?* *(Delhi H.S. 1961)*

8. *Explain the term 'Wealth' as it is understood in Economics.* *(Rajputana 1941 ; Delhi 1933)*

Distinguish between :—

(*i*) *Wealth and Capital.*

(*ii*) *Wealth and Income.* [See Secs. 10-12.] (*P.U. Pre-Univ. 1962*)

9. What is meant by wealth in Economics? Is money wealth? Give reasons for your answer. [See Secs. 10, 11.] (*Bihar 1935*)

Will you regard the following as wealth :—

	Answer
(*a*) *Love for the country.*	No.
(*b*) *A surgeon's skill.*	No.
(*c*) *A professor's ability.*	No.
(*d*) *Weekly wages of a worker.*	It is income not wealth.
(*e*) *College building or Town Hall or Government Hospital.*	It is social wealth.
(*f*) *A rupee coin.*	It is wealth.
(*g*) *Mahatma Gandhi's autograph.*	Only if Mahatma Gandhi charges a price and it can be sold.
(*h*) *A war medal of lead.*	No.
(*i*) *Life insurance policy.*	Yes, to the *extent of its surrender value.*
(*j*) *War Bonds.*	Wealth for the individual and negative wealth for the nation.
(*k*) *Tickets for a wrestling match.*	Yes, you get a service in return.
(*l*) *Money*	Yes.

10. Define wealth. Are the following wealth? (a) Ganges water, (b) A five-rupee note, (c) Sweet voice of a musician, and (d) The Taj Mahal. (*U k l Inter. Arts. 1960*)

11. Which of the following can be regarded as wealth in Economics and which of them cannot be regarded as wealth? Give reasons :—

Surgeon's Skill; a ten-rupee note, air: copy-right of a book; mother's ove for the child; household equipment and furniture; Goodwill of a bussiness; services of a lawyer. (*P.U. Pre-Univ. 1962*)

12. *How will the wealth of India be affected by the following :—*

(*a*) *The Government issues a war loan.*

(*b*) *The Government issues a development loan.*

(*c*) *Government pays interest by raising funds by taxation.*

(*d*) *The Government pays off a loan.*

[(*a*) Wealth is transferred from the public to the Government. There is no increase. But it is used for destructive purposes. Hence the wealth of the community is decreased. The bondholders will, of course, get their money and the Government will pay them by taxing the people.

(*b*) This will create more wealth by the development of trade and industry.

(*c*) No increase in wealth. It is mere transfer from the tax-payer to the bondholder.

(*d*) The same as (*c*).]

13. Define Wealth and distinguish between Individual Wealth, Collective Wealth and National Wealth. [See Secs. 10 and 14.] (*C.U. 1913*)

14. "Ill fares the land to hastening ills a prey.
Where wealth accumulates and men decay."

Do you agree with the poet?

Or

"Increase in Wealth is not necessarily synonymous with increase of welfare." Discuss. [See Sec. 13.] (*C.U. 1939*)

15. What are the attributes by which you distinguish wealth from goods? Explain whether the following things are wealth :—

(*a*) *Tea gardens of Assam.* Yes, they are individual wealth.

(*b*) *Your college library.* — Social wealth.
(*c*) *The Brahmaputra river.* — National wealth in a wider sense.
(*d*) *Your fountain pen.* — Yes ; individual wealth.

[See Secs. 10 and 14] (*Gauhati 1953*)

16. Fill in the following blanks by using one of the words given in brackets against each statement and give reasons in support of your answer :—

(*i*) *Goods have great.....(value-in-use, value in exchange).*
(*ii*) *Water is.....(economic, free) good.*
(*iii*) *Kalidas's works are.....(personal, social, international) wealth.*
(*iv*) *Sand on the sea-shore is not wealth because it does not possess..... (utility, scarcity).*
(*v*) *Mr. A's ability is his.....(personal, individual) wealth.*
(*vi*) *Price is.....(utility, value) expressed in terms of money.*
(*vii*) *A surgeon's skill is not wealth because it does not have.....(utility, transferability).*

17. Fill in the following blanks by using one of the words given in brackets :

(*i*) *Diamonds have a very high.....(value-in-use, value-in-exchange).*
(*ii*) *There can be a general rise or fall in.....(values, prices).*
(*iii*) *Hospitals, Roads and Roadways are considered as..... (public goods, private goods).* (*P U. Pre-Univ. 1962*)
(*iv*) *Wealth is a.....(fund, flow, income).* (*P.U. Pre-Univ. 1961*)
(*v*) *All capital.....(is, is not) wealth.*
(*vi*) *In Economics we consider .....(sunshine, land, water) as economic goods.* (*P.U. Pre-Univ. 1961 Suppl.*)
(*vii*) *Sand in Rajputana desert is not wealth because it does not possess .....(utility, scarcity, transferability).*
(*viii*) *Shri Ram's fountain pen is his.....wealth (personal, individual).*
(*ix*) *Shakespeare's works are.....(personal, social) wealth,*
(*x*) *Air is a.....(free, economic) good.*
(*xi*) *Goodwill of a business is called.....(material, non-material) good.*
(*xii*) *The Bhakra Dam is.....(social, cosmopolitan) wealth.*
(*xiii*) *The skill of an actor is.....(individual, personal) wealth.*
(*xiv*) *The lawyer's ability is not wealth because it does not possess..... (utility, scarcity, transferability).*
(*xv*) *All.....(values, prices) rose during the war.*
(*xvi*) *The services of a domestic servant are a..... (free, economic) good.*
(*xvii*) *The services of a doctor for his patient are.....(material, non-material) good.*
(*xviii*) *When a thirsty man takes water, he gets..... (utility, satisfaction).*

18. What terms are used for the following in Economics ?

(*i*) *Want-satisfying capacity of a commodity.*
(*ii*) *Those goods whose supply is scarce in relation to demand for them.* (*Pb. Univ. H.S. 1961*)
(*iii*) *The power of a commodity to satisfy a human want.*
(*iv*) *The power of a commodity to get other things in exchange for itself.*
(*v*) *Value expressed in terms of money.* (*Pb. Univ. H.S. 1961 Suppl.*)
(*vi*) *All free gifts of nature.*

19. Give two examples each of the following :—(a) Economic goods, (b) Non-material goods, (c) Social wealth, (d) Goods which have utility but not transferability. (e) Goods which have transferability but not scarcity, (f) National goods, (g) Free goods, (h) Goods which have utility but not scarcity, (i) Goods which have value-in-use but no value-in-exchange, (j) Cosmopolitan wealth, (k) Goods which possess utility but do not give pleasure, (l) Goods which possess utility but are not useful, (m) Personal wealth, (n) Individual wealth, (o) Time utility, place utility and form utility.

CHAPTER IV

HUMAN WANTS AND THEIR SATISFACTION

Your wants are the beginning as well as the end of Economics !

1. **Introduction**. "Man is a bundle of desires." His wants are infinite in variety and number. Some of his wants are organic and natural. He must have some food to live, some clothing to cover his body and some sort of shelter to protect himself against the inclemencies of weather, and also against his enemies. Without those things man's life would be impossible.

But a civilised man is not satisfied with the bare necessaries of life. Even when the problem of bare existence has been solved, the struggle of life remains as keen as ever. The struggle now is for the comfort and joy of life. As man becomes more civilised, his wants multiply. He wants better food, fashionable clothing, a comfortable lodging, and so on.

All people do not have the same wants. Wants vary from individual to individual. They are relative to one's social and economic position. They are also the outcome of one's education, temperament and tastes. The modern man is the product of a long process of evolution which is reflected in his endless and ever-growing wants.

2. **How Wants Arise.** The origin of wants can be traced to three main sources :—

(*a*) Our primary wants are derived from our *natural instincts*. Our body is so made that it must have food and water at regular intervals ; it needs clothing and shelter to protect itself. These wants we have in common with animals.

(*b*) Over and above these primary wants, we have many others, which arise from our economic and social position. We do not live alone. We are all members of an organized society and live with other fellow human beings. As such we have *social obligations* and have to live up to the expectations of the people around us. In the matter of dress, in the observance of social customs, in the locality we live in and even in the matter of what we eat and how we eat it, we are influenced by other people's opinions and ideas. In these and such like matters, we cannot exercise our independent judgment. We would like to do what others expect us to do.

(*c*) Another thing that creates wants in us is *advertisement and propaganda* of the producers. We often see that a persistent and cleverly conducted publicity campaign creates in us a desire to possess things, which we do not require but which the manufacturers have placed in the market. We are bombarded on all sides with advertisements. We are told that we must have a particular food at

breakfast ; we must wear particular shoes in a particular season ; we must use a certain pen, and so on.

Dr. Dodd, an eminent American writer, thinks that each one of us has four kinds of wishes or desires :

(1) The wish for recognition ;

(2) The wish for variety ;

(3) The wish for security ; and

(4) The wish for a response.

These wishes lie at the root of all economic activity. In the absence of these wishes, we would have lived practically like animals. There would have been no need for us to undertake any work of economic nature. The science of Economics would not have come into existence.

3. **Characteristics of Human Wants.** A careful study of human wants has revealed the following chief characteristics :—

(*i*) *Human wants are unlimited.* We have already studied in a previous chapter about the insatiability of man and the multiplicity of human wants. We shall simply repeat here that there is no end to human wants. When one want is satisfied, another takes its place. The never-ending cycle of wants goes on. Man's mind is so made that he is never completely satisfied. He always hankers after more and more goods. There is no limit to his wants so long as he breathes. Human wants keep multiplying.

(*ii*) *A particular want is satiable.* Although wants in the aggregate are unlimited, yet it is possible to satisfy a particular want, provided one has the means. If a man wants a car, he can have it and be satisfied. If he is hungry, he takes food and the want is satisfied. Thus a particular want can be satisfied, if one has money enough for the purpose.

(*iii*) *Wants are complementary.* Very seldom does one commodity by itself satisfy a want. Usually it calls for something else to help it. If we want to write a letter, we must buy a pen as well as ink and paper. The pen alone is not enough.

It is common experience that we want things in groups. A single article out of a group cannot satisfy our wants by itself. It needs other things to complete its use. Thus a motor-car needs petrol and mobil oil before it starts working, shoes need laces, and so on. We conclude, then, that wants are complementary.

(*iv*) *Wants are competitive.* Not only are wants complementary, they are also competitive. One commodity competes with another for our choice. We all have a limited amount of money at our disposal, whereas we want so many things at the same time. We cannot buy them all. We must, therefore, choose between them by accepting some and rejecting others. Thus there is competition between the various things that we could buy.

(*v*) *Some wants are both complementary and competitive.* Machinery competes with labour. A manufacturer can, to some extent, substitute one for the other. But they also go together. Both of

them are used in factories. Thus they not only compete, they also complement each other.

(*vi*) *Wants are alternative.* There are several ways of satisfying a particular want. If you feel thirsty, you can have *soda*, *sharbat* or *lassi* in summer, and tea, coffee or hot milk in winter. There are different alternatives open to us. The final choice depends on their relative prices and the money at our disposal.

(*vii*) *Wants vary with time, place and person.* Wants are not always the same nor the same with every one. Different people want different things and the same man wants different things at different times and in different places.

(*viii*) *Wants are influenced by salesmanship and advertisement.* We do not always buy the things we need. We are often induced to buy particular brands by persuasive salesmen or clever advertisement even though better alternatives may be available.

(*ix*) *Wants vary in urgency and intensity.* All wants are not equally urgent and intense. Some wants are more urgent and important than others. These are generally satisfied first while others are postponed.

(*x*) *Wants change into habits.* If a particular want is regularly satisfied, a person becomes used to it and it grows into a habit. He must then use that particular commodity regularly. That is how young lads often become confirmed smokers.

(*xi*) *Wants are the result of customs or convention.* Custom still rules the world. All of us, whether living in villages or towns, are slaves of custom, more or less. Many of our wants are conventional. They are dictated to us by society. Whether we like it or not, we have to spend lot of money on social ceremonies.

The characteristics of wants need a close study as they give birth to some of the most important laws of the science of Economics. For instance, the fact that any single want is satiable leads to the law of diminishing marginal utility which says that every successive unit of a commodity consumed has less utility. Again, the competitive nature of wants has given us the law of substitution. Some of the other characteristics of wants, that they become habits and run in groups, led Dr. Engel (a German thinker) to lay down his law of family expenditure which we shall study later.

4. **Classification of Wants.** The commodities and services that we want are generally classified as necessaries, comforts and luxuries. Let us consider them one by one.

(*i*) **Necessaries.** Necessaries may be further sub-divided as :

(*a*) *Necessaries of Existence.* These are the things without which we cannot exist, *e.g.*, a minimum of food, clothing and shelter.

(b) *Necessaries of Efficiency.* Such goods are not necessary to enable us to live, but necessary to make us efficient workers. A table and a chair are necessaries of efficiency for a student. Having these he will be able to read and write better.

(c) *Conventional Necessaries.* These are the things which we are forced to use either by social custom or because the people

around us expect us to do so. It is clear that we cannot dress ourselves in a strange fashion. We must dress according to our station in life.

The term conventional necessaries is also applied to consumption of things like tobacco and wine to which people sometimes get addicted.

(*ii*) **Comforts.** Having satisfied our wants for the necessaries of life, we desire to have some comforts too. For a student, a book is a necessity ; a table and a chair are necessaries of efficiency ; but cushioned chair is a comfort. Comforts make for a fuller life.

In order to distinguish between a comfort and a necessary of efficiency we may say that the benefit from the former is less than the money spent on it, whereas the benefit in health and efficiency from the latter is greater.

(*iii*) **Luxuries.** Man does not stop even at comforts. After comforts have been provided, he wants luxuries too. 'Luxury' has been defined as something superfluous, something we could easily do without. Costly furniture, luxurious cars, shower baths, silk clothes, jewellery, a house fitted with refrigerators, electric cookers, washing machines, soft beds, and meals consisting of a large number of costly dishes—are all luxuries. They are unnecessary and one can lead a healthy and useful life even without them.

Money spent on comforts brings some compensation, while the expense on luxuries brings negligible return. On the contrary, there may be a positive loss or harm.

5. **Can We Justify Luxuries ?** There are people who condemn all forms of luxury as morally bad and economically wasteful. As against this there are those who say that everybody has a moral right to enjoy what he has. A prudent person retorts, "But why waste ?" Then there are social considerations which compel us to examine the effect of a particular expenditure on society as a whole. The problem of a luxury is thus complicated by these different views.

Luxuries are advocated on the following grounds :—

(*a*) Production of articles of luxury creates employment and is good for the trade and industry of a country. It thus renders a social service, besides providing enjoyment for a few.

(*b*) Expense on luxuries transfers wealth from the idle rich to the active and useful members of society who badly need it and make a more profitable use of it. This transfer of wealth is good for society as it brings about a more even distribution of wealth.

(*c*) The production of luxury goods adds to the skill of the workers. Luxury articles require art and skill to produce them.

(*d*) The desire for luxuries acts as a stimulant to the discovery of new inventions, new labour-saving devices and new type of goods. It thus makes for technical and industrial progress.

(*e*) The use of luxuries is beneficial to society as it makes people refined, cultured and aesthetic.

There is undoubtedly a good deal of force in these arguments. All expense on luxuries, therefore, cannot be condemned. No rigid

rule can, however, be laid down. Much depends on the form that the expenditure takes. There is no doubt that some of it is harmful to the individual and is undesirable from the social point of view, *e.g.*, money spent on dances and drinks. Besides, we cannot agree that employment can be increased, inventions can be stimulated and technical and industrial progress brought about only through the production of luxuries. Instead of building a luxury palace, if a Maharaja builds a sugar or a textile mill, all these aims will be much better promoted, and there will be more sugar or cloth for the poor.

Expense on luxuries does not add to human welfare. All that can be said is that some of it is harmless while a good deal of it is positively harmful. In any case most of it is a waste.

6. **What is Waste?** Let us understand clearly what waste means. In determining whether an expenditure is wasteful or not, we have to weigh the benefit obtained and the money spent. A man goes to the races. He loses Rs. 1,000. If he thinks the pleasure that he has derived from seeing the races and the thrill of gambling fully cover the loss, it is not waste from *his* point of view. The expenditure is economically sound so far as *he* is concerned. Nor is it waste from the *social* point of view. His loss has been somebody else's gain. But if his loss of money has curtailed his resources and he feels that the fun was not worth it, it is certainly a waste.

Expenditure is wasteful from the social point of view, if the return of labour and capital used is less than it would have been if the money had been used in some other way. *There is waste when individual satisfaction is not proportionate to the social resources used up.*

7. **Necessaries, Comforts and Luxuries are Relative Terms.** It is necessary to remember that we cannot attach permanent and fixed labels of necessaries, comforts or luxuries to commodities. We cannot say that a car is *always* a luxury and that a shirt *always* a 'necessary'. The same thing may be a 'necessary' under one set of conditions and a luxury under others. To a college student, a certain type of dress is necessary, whereas for a villager it may be regarded as a luxury. A car may be a luxury for a person, living in a small city of short distances but for a busy official or a doctor in a large city it is necessary.

The luxuries of yesterday have become the conventional necessaries of today. This is a natural consequence of rising standard of living and growing prosperity. The amenities which were enjoyed by higher classes in the past are considered necessary by the working classes of today, *e.g.*, electricity, newspapers, furniture, etc.

In the same manner, what may be regarded a luxury in India may be a necessary in England. Overcoats or electric heaters are luxury here and a necessary there.

We may thus conclude that goods are necessaries, comforts or luxuries according to the climate, country and the people we are considering. They are relative to person, time and place. Nothing

can be considered as a luxury or a necessary for ever and for every person without reference to these conditions.

8. **The Order in which Wants are Satisfied.** Ordinarily the answer would be : necessaries first, comforts next, and luxuries at the end. It is also a very reasonable course to adopt. It is the way of wisdom to satisfy one's essential wants first and then think comforts and last of all luxuries, if we have resources.

But in actual practice, things are not so simple. People do not always behave in a logical manner. Some consumers have not the sense enough to see what is necessary for them. It is only after they have wasted some money that they realise how extravagant they have been.

When making choices they are often misled by clever advertisements as well as by a false sense of duty to relatives and dependents.

Ordinarily, however, more urgent wants will claim a consumer's attention first.

9. **Standard of Living.** The phrase 'standard of living' is a vague one. It is very difficult to define it in precise terms. Nevertheless there is a reality about it. People have in their minds quite a fair picture of their standard of living. If they find that this standard of living is threatened, they may even resort to 'direct action.' Recently the bank employees in India decided to go on a strike when they felt that their wages did not ensure the maintenance of their standard of living.

'Standard of living' refers to the necessaries, comforts and luxuries which a person is accustomed to enjoy. We know that if a person satisfies some wants in a particular manner long enough, they recur and become habits. He must have those commodities and services, otherwise he does not feel happy. Such things become his daily requirements and constitute what has been called his standard of living. They include his food, dress, house, amusements, etc. Standard of living is, in short, his mode of living.

A child is born and brought up to a certain standard. But this family standard is not a constant thing. It is raised or lowered when the child grows up into a man and starts earning for himself. But his early life, education, tastes, temperament, ambition and the social circle in which he moves—all influence it. As these change, his standard of living changes too.

It is clear then that the standard of living of a person is not determined only by himself or according to his own whims and desires. He has also to consider what society expects of him. It is thus a compromise between what he himself likes and what the society expects.

Further, the standard of living of an individual is not merely his own concern. He is a unit living in a social group. Now the standard of living of a group or nation has an important influence on its total production. Ill-fed and ill-clad labourers would certainly be less efficient.

If the standard of living in India were to rise, the total demand for sugar, milk, cloth and other things would increase. More of them would be produced. This would increase the welfare of society as a whole and the efficiency of labour in particular.

The standard of living in a country determines its political and economic organization, industrial efficiency and economic progress.

10. **Standard of Living and Standard of Life.** A distinction is sometimes made between standard of living and standard of life. *Standard of living*, as we have already explained, refers to our usual scale of expenditure, the goods we consume and the services we enjoy. *Standard of life* is a much wider term. It refers to one's ideals in life. It includes a person's expenditure on his non-material requirements. "Simple living and high thinking" is a common axiom. "Simple living" hints at a low standard of living, but "high thinking" refers to a high standard of life. Mahatma Gandhi had a low standard of living but a big standard of life.

11. **Engel's Law of Consumption.** Standard of living of a family is shown by the family budget. Dr. Ernest Engel, one time the Head of the Prussian Statistical Bureau, enunciated a law in 1857 based on an intensive investigation of a number of family budgets. He analysed the expenditure of different classes of people and came to the following conclusions :—

(*i*) As income increases, the *percentage* expenditure on food and other necessaries of life decreases, and *vice versa*. When a person becomes rich, he spends a smaller proportion of his income on food and other necessaries of life.

(*ii*) The *percentage* of expenditure on luxuries and other cultural or recreational wants increases with an increase in income, and decreases when income decreases. It almost vanishes in the case of low incomes. There is bound to be a greater variety in consumption when incomes are higher.

(*iii*) The *percentage* of expenses on rent, fuel and light is invariably the same for all incomes.

(*iv*) Whatever the income, the *percentage* of outlay on clothing is practically the same.

It should be noted that we are speaking of the percentage of expenditure and not the total expenditure. A rich man, of course, spends much more than a poor man on his food, but he certainly spends a lower *percentage* of his income on it. Almost the whole of a poor man's income is spent on necessaries of life. But if his income is doubled, the expenditure on necessaries will increase, but it will not become double.

In India, too, a study of family budgets has been made. Dr. Harold Mann conducted such enquiries in the Deccan. The Board of Economic Enquiry, Punjab, has also made intensive investigations of the manner in which farmers, artisans and factory hands spend their income in the Punjab. Engel's Law has been confirmed by all these inquiries although the percentages of expenditure are slightly different.

WHAT YOU LEARN FROM THIS CHAPTER

How wants arise. Our wants originate in—

(*i*) natural instincts, (*ii*) economic and social position, and (*iii*) advertisements.

As man becomes more civilised, he is not content with the consumption of bare necessaries of life. He wants better food, more and more fashionable clothing and a more comfortable and artistic lodging.

Characteristics of Human Wants :

(*i*) Human wants are unlimited.

(*ii*) Each particular want is satiable.

(*iii*) Wants are complementary.

(*iv*) Wants are competitive.

(*v*) Some wants are both complementary and competitive.

(*vi*) There are several alternatives to satisfy a want.

(*vii*) Wants vary with time, place and person.

(*viii*) Wants are influenced by salesmanship and advertisement.

(*ix*) Wants vary in urgency.

(*x*) Wants are the results of custom and convention.

(*xi*) Wants develop into habits.

Classification of Wants :

(*i*) *Necessaries* :

(*a*) *Necessaries of existence, i.e.*, things without which we cannot live.

(*b*) *Necessaries of Efficiency, i.e.*, goods which make us more efficient.

(*c*) *Conventional necessaries*, which are dictated by social conventions or customs or the things to the use of which we get accustomed.

(*ii*) *Comforts*—things which make us comfortable ; they also add to our efficiency.

(*iii*) *Luxuries*—things which are superfluous or unnecessary. They may be harmful or harmless, but they do not add to our efficiency.

Are Luxuries Good or Bad ?

Luxuries are advocated because they—

(*a*) create employment,

(*b*) transfer wealth from the rich to the poor,

(*c*) add to the dexterity and the skill of the workers,

(*d*) are an incentive to hard work, and

(*e*) provide against a rainy day and make us more refined.

But all these purposes are better served if money is invested in trade and industry instead of being spent on luxuries.

What is Waste ? From the individual point of view, money is wasted if the satisfaction obtained is not equal to the money spent.

From the social point of view, money is wasted if the return is not proportionate to the economic resources used up and if the resources could be better used elsewhere.

Necessaries, Comforts and Luxuries are Relative Terms.

What is a luxury under certain circumstances may be regarded as a necessary under others.

What is the order in which wants are satisfied ?

More urgent wants are satisfied first. But each individual decides for himself what is more urgent. This depends on his prudence, sense of duty, education, tastes and temperament.

Standard of Living. It means mode of living, *i.e.*, the necessaries, luxuries, comforts, etc., to the use of which a man has become accustomed. It is first inherited and then modified by one's own economic and social position, tastes, temperament and education. It is a compromise between one's own desires and the expectation of the society.

Standard of living has great significance for the economic progress of the country. It determines the extent of the market.

Standard of life means ideals of life. One may have a low standard of living but high ideals of life, *e.g.*, Mahatma Gandhi.

Engel's Law of Consumption :

(*a*) Percentage expenditure on food decreases as income increases.

(*b*) Percentage expenditure on luxuries, comforts and amusements increases as income increases.

(*c*) Percentage expenditure on light, fuel and rent is invariably the same for all incomes.

(*d*) Percentage expenditure on clothing is practically the same for all incomes.

CAN YOU ANSWER THE FOLLOWING QUESTIONS ?

1. Describe the most important characteristics of human wants, and point out their importance in the theory of consumption. [See Sec. 3]. (*Delhi H.S. 1960*)

2. Show that some characteristics of human wants form the basis of some economic laws. (*J. & K. Inter. 1960*)

3. Discuss the characteristics of human wants. Is the multiplication of wants desirable ? (*U.P. 1942*)

(See Sec. 3. If the wants multiply, economic activity will increase leading to economic progress. Standard of living will improve and national efficiency will go up. But for an individual to increase his wants is not always good, unless his income has gone up.)

4. Define 'wants'. Discuss :

(*a*) *The effect of circumstances on wants.*

(*b*) *Characteristics of wants.* (*U.P. Board 1953*)

[See Sec. 3 and also answer to the above question.]

5. Explain the distinction between necessaries, comforts and luxuries giving two examples of each one of them. (*P.U. H.S. 1961, P.U. Inter. 1962*)

[See Sec. 4.] (*Rajasthan Pre. Univ. 1960 ; Delhi 1948*)

6. Show how the classification of wants into necessaries, comforts and luxuries does not primarily refer to articles of consumption and varies according to the individual consumer, the time and place. Give Indian examples wherever possible. [See Sec. 7.] (*Rajputana 1945*)

Or

What is the basis of this classification ? (*Rajasthan Pre. Univ. 1960*)

7. Will you regard the following articles as necessary, comfort or luxury :—

(*i*) *A motor car for a minister.*

(*ii*) *A motor car for a busy doctor in Delhi.*

(*iii*) *A motor car for a college student in Delhi.*

(*iv*) *A bicycle for a college student in Delhi ?* (*Pb. Univ. H.S. 1961*)

8. Is the consumption of luxuries beneficial from the economic point of view ? [See Sec. 5.] (*Nagpur 1944*)

9. "What is luxury for one may be a necessary for another." Explain with illustrations. [See Sec. 7.]

10. Distinguish between standard of living and standard of life. Mention some of the influences that have formed your standard of living. (See Secs. 9 and 10)

11. Explain how your wants may change in the next ten years.

(You will probably get settled in a profession and have a family. Your wants will change accordingly.)

12. Have you studied any set of family budgets ? Have you noticed in them some of the laws that human consumption generally follows ? What are they ? (*Delhi H.S. 1960*)

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Or

What is a family budget ? Draw up a family budget and discuss the importance of the various items in it from the point of view of Engel's Law.
(P.U. 1953)

(Family budget is a statement of expenditure of a family's income over several items of expenditure. The main items included in it are food, clothing, fuel, housing, lighting, medicine, travelling, education, social ceremonies, recreation, interest payment, etc. The following is a typical family budget of a workman whose income is Rs. 60 per mensem) :

Food	45
Clothing	4
Rent	5
Education	1
Medical aid	1
Interest on debt	2
Travelling	1
Miscellaneous	1
Recreation	nil
Saving	nil
Total	60

Or

What is Family Budget ? Explain its detail and prepare the family budget of a mason earning Rs. 60 per month. *(U.P. Board 1956)*

13. Explain the importance of family budgets to (a) the head of the family, (b) a manufacturer, (c) a shopkeeper, (d) an economist, (e) a finance minister, and (f) a social reformer.

14. State and explain 'Engel's Law of Family Expenditure' and indicate its application to India. [See. Sec. 11.] *(P.U. 1957)*

15. What are the advantages of maintaining regular family budgets ?
(P.U. Pre. Uni. 1962)

16. Fill in the blanks by using one of the words given in brackets :—

(i) As the income increases, the percentage expenditure on food and necessaries of life.....(decreases, increases). *(P.U. Pre-Univ. 1961)*

(ii) Man's wants are.....(limited, unlimited).

TOPICS FOR DEBATES

(*i*) Increase in desires is the cause of human suffering.
(*ii*) "Desire for recognition is the strongest social motive."

CHAPTER V

UTILITY ANALYSIS

The more we have the less we want

1. **Introduction.** The student has now acquainted himself with the nature and scope of Economics. He also knows now what the meanings of the various terms used in Economics are. Now we are in a position to start the study of Economics proper. We shall first begin with the Theory of Demand or Utility Analysis. We at once want to make it clear that our approach here is Marshallian. There are two approaches to the study of the Theory of Demand or Consumer's behaviour. One is Marshallian and the other is modern approach or indifference curve technique. The latter is reserved for advanced study. In this elementary study, we confine ourselves to the Marshallian approach which assumes that utility is measurable and can be represented quantitatively.

Indifference Curve Technique. A new technique has been developed by modern economists like Hicks for studying consumer's behaviour. Marshall said that a consumer tries to maximise his satisfaction (or utility) from his income and that the utilities could be added since they were supposed to be measurable. The modern economists do not agree that the utility can be measured. We can only say that a consumer has a *scale of preferences* and the utilities (or satisfaction) *can be compared* (*not measured*) as being greater or less or equal. The consumer formulates his scale of preferences regardless of the market prices but listing commodities in order of his preferences. From this list one combination of the two commodities gives him greater, smaller or equal satisfaction as compared with another combination based on his scale of preferences. An indifference curve is drawn representing preferences of the consumer between the two commodities. The consumer gets the same satisfaction on all points on an indifference curve.

Suppose a consumer wants to buy oranges and apples. One combination of oranges and apples gives him as much total satisfaction as another combination of more oranges and less apples. The consumer cannot say how much utility an apple or orange has for him. He can only compare the various combinations of apples and oranges. In other words, he knows what substitution of apples for oranges or *vice versa* will give him the same satisfaction. Thus our consumer has in his mind an indifference schedule corresponding to which an indifference curve can be drawn.

In this chapter, we discuss two important Laws relating to consumer's behaviour *viz.*, the Law of Diminishing Marginal Utility and the Law of Equi-marginal Utility. But we start with consumption, its meaning, types and importance.

2. **What is Consumption ?** We have already discussed human wants, their nature and characteristics. The department of Economics which deals with wants and their satisfaction is known as Consumption.

By consumption we mean the satisfaction of our wants by the use of commodities and services. In other words, consumption means using up of utilities. When we take a glass of water to quench our thirst, we are said to consume water. While sitting on chairs in the class-room, the students are consuming the chairs. A person is sick ; he calls in a doctor. He has 'consumed' the doctor's service. Whenever we make use of any commodity or service for the satisfaction of our wants the act is called consumption. It deals with wealth using activities of man as distinguished from wealth-getting activities which are dealt with in Production. Thus consumption deals with the satisfaction of wants.

Consumption has also been defined as destruction of utility. Man cannot create matter nor can he destroy it. Matter is there in the world ; it will remain there ; man can only change its from. When a man eats a mango, he does not destroy the matter of which it is composed ; he has only changed its form. Formerly, it could satisfy a human want, *i.e.*, it possessed utility ; now that want satisfying power is gone. In other words, man has destroyed its utility in the act of eating it. The mango has been consumed.

The destruction of utility in consumption may be quick and immediate as in the case of a mango or a glass of milk. Or it may be a prolonged and slow process as in the case of furniture. In both cases, utility or want-satisfying power is being destroyed.

But mere destruction does not mean consumption. If a house catches fire and is destroyed, it has not been 'consumed' in the economic sense. Consumption implies the satisfaction of a human want. The emphasis is on the satisfaction of wants rather than on the destruction of utility. If no want has been satisfied, it is not consumption. For practical purposes, consumption means the spending of money income. Milk, food and other goods that we consume cannot be had free : we must pay for them. Consumption, thus, involves expenditure of income or wealth-using activity of man.

3. **Types of Consumption.** Economists distinguish between the following three types of consumption :—

(*i*) *Direct or Final Consumption.* I wear my shirt ; I eat a melon. Both these things have served their purpose and are of no further use. They have been finally consumed. They have directly and immediately satisfied me. Similarly, all other consumers' goods give direct or final satisfaction. Some of them are consumed up in one use like the melon. Others like furniture, shirt, etc., are of a lasting nature and continue to be used and consumed for some time.

(*ii*) *Productive or Indirect Consumption.* Think of a sewing machine. We use it or 'consume' it. But it does not give us direct satisfaction. It makes a shirt for us, and shirt is what we really wish to consume. We consume the sewing machine only *indirectly* ;

we really consume the shirt that has been made by it. It is thus a case of indirect consumption. All instruments of production give us satisfaction only indirectly. Their consumption is productive or indirect.

(*iii*) *Wasteful Consumption.* When a thing is accidentally destroyed by fire, earthquake or flood, the result is wasteful consumption. But this is really no consumption for it has not satisfied any human want.

We find that consumption leads to production. First we feel a want and then we proceed to obtain things with which to satisfy our want. Thus economic activity begins with consumption. But the thing produced must be consumed. Hence production also ends in consumption. *Thus consumption is both the beginning as well as the end of human activity.* Without consumption or anybody wanting a thing, the thing will not be produced. Hence consumption gives the initial push to production. Production starts because of consumption. But the purpose of production is to satisfy human wants. Hence consumption is also the end of production.

4. Why Do We Study Consumption Before Production ? A commodity must first be produced before it can be consumed. *Chronologically*, therefore, production comes first. But why do we produce a commodity ? A commodity is produced because somebody wants it. In the absence of a want, the thing would never have been produced. *Logically*, therefore, consumption comes first.

The presence of a want (*i.e.*, the desire to consume a commodity) starts all human activity and results in production. Hence consumption really comes first and is studied first. Consumption is also the sole end of production.

Consumption has now gained its rightful position and has been placed in the forefront in the study of Economics. For long it was kept in the background. Sufficient attention was not paid to it. It was not realised that the quality and quantity of consumption determined the efficiency of the people and were thus responsible for all economic progress. But now the importance of consumption has been fully recognised. Consumption now forms an important part of the study of Economics.

Consumption and production go side by side. Only of a primitive society could it perhaps be said that a man first produced and then he sat down to consume. In a modern society, both these processes are going on simultaneously. We do not sow wheat and then wait till the crop matures to start consuming. We can wait so long ? People must be fed while crops are ripening. This is possible because wheat was produced last year too, and a part of it was kept in stock for use in the present year. Wheat can also be imported and consumed in case of internal shortage.

Everybody is both a consumer and a producer. We are sometimes apt to imagine that consumers and producers are two distinct classes of people. The people say that during war consumers suffered while producers gained. This is misleading. The same man

is a producer and a consumer. As a consumer he loses and as a producer he gains. Everybody works to earn his living ; therefore everybody is a producer. Everybody then spends his income ; hence everybody is a consumer, although he may not consume what he himself produces.

5. **Importance of Consumption**. Modern economists rightly emphasise the importance of consumption. It has already been explained that *consumption is the beginning as well as the end of all economic activity*. A man feels a desire and then he makes an effort to satisfy it. When the effort has been made, the result is the satisfaction of the want. Want is thus the beginning and its satisfaction the end of our economic effort. *Consumption is regarded as the be-all and the end-all of all economic activity.* It is consumption which gives the initial push to production. Production thus is directed and stimulated by consumption.

Not only do the consumers give initial push to production, but their desires govern the volume and direction of all productive activity throughout. If the consumers are satisfied, business prospers and production expands. But if the consumers happen to dislike a commodity or think that its price is too high, its production will sooner or later come to an end. *A consumer is a king* and his sway extends over the entire realm of economic activity.

The existence of wants is the mainspring of all economic life and their multiplicity or expansion is the secret of all economic progress. Expansion of wants and economic progress go together. Manufacturers try to find out better and more profitable methods to satisfy the consumers. This leads to the discovery of new products and new processes and the invention of new machines. Every economic effort made to satisfy one want creates more wants. The more the wants are satisfied, the more they increase. "Appetite comes with eating." Besides, human faculties are exercised in the effort to satisfy human wants. A body of skilled workers is built up besides successful businessmen.

The all-pervading influence of consumption can be seen in all branches of Economics. Consumers direct and guide production. It is intensity of consumers' desires which determines price in the market. Consumption thus exerts its influence on exchange also. Without consumption there would have been no exchange. Distribution, *i.e.*, the flow of incomes to landlords, workers, capitalists and organisers, is also influenced by the consumption (standard of living) of each of these classes. Standard of living determines their efficiency and on efficiency depends their share in the national income.

Thus the importance of consumption cannot be over-emphasised. It is all-pervasive. We shall now study some laws of consumption.

6. **The Law of Diminishing Marginal Utility.** A very important law in consumption relates to the fact that as we consume a commodity, the satisfaction derived from its successive units goes on decreasing. It is well-known that familiarity breeds contempt. *The more we have of a commodity the less we want to have more of it.*

It is the experience of every consumer that as he goes on consuming a particular commodity, each successive unit yields less and less satisfaction. In other words, at each step its utility goes on decreasing.

Thus if we are very thirsty and buy a drink to quench our thirst the drink will yield a great deal of satisfaction. After the consumption of the first drink, however, we would not like to have another, because our want has been practically satisfied. This is the case with most of the commodities.

Dr. Marshall states the law thus :—

"The additional benefit which a person derives from a given increase of his stock of anything diminishes with the growth of the stock that he has."

The following table relating to an imaginary consumer consuming *rasgullas* illustrates the law :

(1) *No. of Rasgullas*	(2) *Marginal Utility*	(3) *Total Utility*
1	15	15
2	13	28
3	10	38
4	8	46
5	4	50
6	2	52
7	0	52
8	−2	50
9	−5	45

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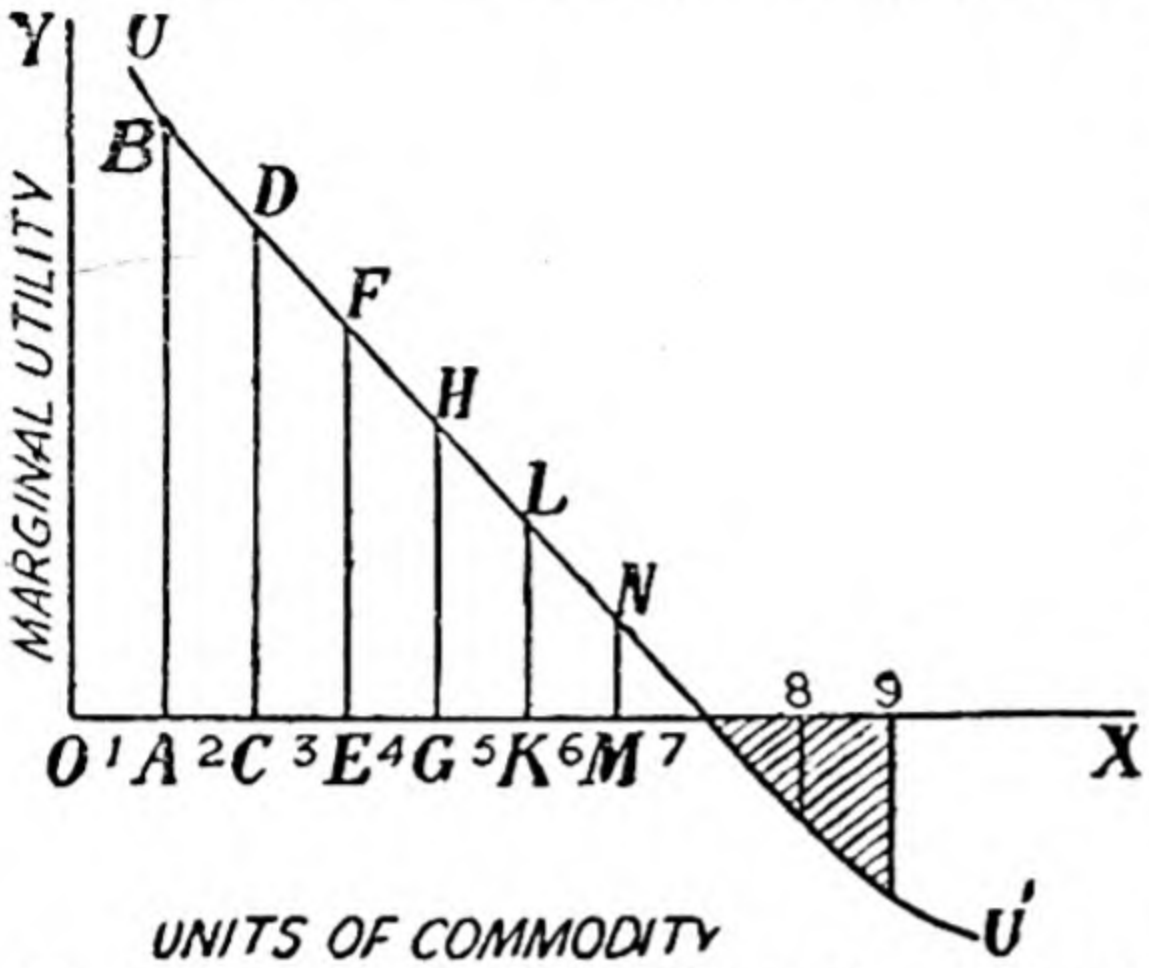
As the consumer goes on eating *rasgullas*, the additional or marginal utility goes on decreasing. The 7th *rasgulla* yields no additional satisfaction and the 8th and 9th have a negative utility (*see* column 2). Their consumption, instead of giving satisfaction, causes dissatisfaction.

If you look at column 3, you will find that the total utility goes on increasing up to a point. It also seems reasonable that the utility of two *rasgullas* should be more than that of one, and the total utility of three more than that of two, and so on. But if you look at it more carefully you will notice that although the total utility does increase, it *increases only at a diminishing rate.* For example, when our friend consumes the second *rasgulla*, the increase in utility is 13 ; and when he consumes the third, the total utility increases by 10 only. Column 2 shows the rate at which utility increases. We can see that it increases at a diminishing rate. In other words, the marginal utility decreases.

Diagrammatic Representation of the Law. The Law of Diminishing Marginal Utility can be represented by a diagram given overleaf.

OX and OY are the two axes. Along OX are represented the units of the commodity, *rasgullas*, and along OY is measured the marginal utility corresponding to the consumption of each unit. UU' is the utility curve. AB is the utility when one *rasgulla* is taken. CD is the additional utility when two of them are taken : CD is less than AB. The additional utilities of other successive units are EF, GH, KL and MN. It can be seen that at each step additional utility goes on decreasing. At the seventh, there is no addition, *i.e.*, the marginal utility is zero, and then it is negative which is represented by the shaded areas below the axis of X.



We may distinguish between initial utility, total utility, zero utility and negative utility.

Initial Utility. It is the utility of the initial or the first unit. In the table given on the previous page, the initial utility is 15.

Total Utility. Look at column 3 of the table. It gives the total utility at each step. For example, if you consume one *rasgulla*, the total utility is 15 ; if you consume two, the total utility is 28, and so on.

Zero Utility. When the consumption of a unit of a commodity makes no addition to the total utility, then it is the point of zero utility. In our table, the total utility, after the 6th unit is consumed, is 52. At the seventh also it is 52. Thus the seventh *rasgulla* results in no increase whatsoever. This is the point of zero utility.

Negative Utility. If the consumption of a commodity is carried to excess, then instead of giving any satisfaction, it may cause dissatisfaction. The utility in such cases is negative.

7. **Marginal Utility.** *Marginal Utility is the utility at the point where the consumer stops further consumption of a commodity.* This is why it is also called the final utility. But where does a consumer stop ? If you are invited by a friend to a feast of *rasgullas*, you will stop when the satiety level is reached, *i.e.*, when you cannot eat any more *rasgullas*. In other words, you will stop at the zero utility. This is the case, however, when you have not got to pay anything for the *rasgullas*.

One does not, however, receive invitations to a feast every day. A consumer has ordinarily to pay for what he wants to eat. In that case, he will naturally weigh in his mind the price that he has to pay and the pleasure that he gets. So long as the utility is greater than the price, he will go on consuming. But as he goes on, the utility steadily decreases. Sooner or later, a point will be reached when

the price and the utility balance each other. Obviously, he will stop eating at this point for if he goes further, the utility will be less than the price, and he will be a loser. This is the point of marginal utility. *At this point the benefit derived is just equal to the price that has been paid.*

Marginal Utility may thus be defined as the addition to the total utility by the consumption of the last unit considered just worthwhile. Column 2 in our table gives marginal utility at each step. If our consumer stops after consuming the 5th *rasgulla*, the marginal utility is 4. Where he actually stops will depend on the price of the commodity. Because if the price falls, he will consume more and the marginal utility will go down and *vice versa*.

It is wrong to say that the marginal utility in this case is the utility of the 5th rasgulla. All the *rasgullas* are alike. They cannot have different utilities. But because a *rasgulla* happens to be eaten in the 5th place, its utility is less than that of each of those taken previously. Hence it is best to say that the marginal utility is the utility added to the previous total when the unit, which is considered just worthwhile purchasing, is consumed.

The margin is not fixed. It moves back and forth. If the price rises, we shall stop earlier. But if it falls, we shall purchase more. Thus the margin is shifted.

8. **Marginal Utility and Price.** Look again at the table in Section 5. Column 2 gives marginal utilities. Suppose each unit of marginal utility is worth one pice. This would mean that the utility of the first *rasgulla* is equal to fifteen pice. Suppose *rasgullas* are being sold at 8 pice each. Then we shall stop buying at the 4th. At the third, the utility is worth 10 pice, whereas the price is 8 pice. Hence we are tempted to buy the next, *i.e.*, the 4th, but no more. At this point, the price is 8 pice and the utility is also worth 8 pice. The two coincide. If the price of a *rasgulla* were to fall to two pice each, we shall buy even the 6th, for it is at that point that the marginal utility and the price will be equal.

When we pay a certain price for a commodity, it can be taken for granted that we think that the satisfaction is at least equal to the price paid. Hence we say that *price measures the marginal utility or that marginal utility indicates the price.*

The relation between marginal utility and price must be carefully understood. They move together. If the price goes up, the marginal utility also goes up because now we buy less, and *vice versa*. The two coincide. But it is wrong to say that the marginal utility *determines or governs price*. It simply *indicates* it. Instead of marginal utility determining price, both marginal utility and price are governed by demand and supply.

9. **Limitations of, or Exceptions to, the Law of Diminishing Utility.** The Law of Diminishing Utility says that as we go on consuming more and more units of a commodity, the utility falls with every successive unit. But this law is true only under certain assumptions. These assumptions are :

(*i*) *Similar Units. All units of the commodity must be similar.* If the units are not identical, the law will not apply. For instance, if the second mango is of a very superior quality, it will yield more satisfaction than the first. The law will apply only if the units are similar.

(*ii*) *Suitable Units. The units of the commodity consumed must not be too small.* If we are given water by the spoonfuls when we are very thirsty, each successive spoonful will give us more satisfaction. If, however, the unit is the usual tumbler of water, the law starts working at once. In the case of very small units, the law applies at a later stage. At first the utility will, therefore, increase instead of decreasing. But ultimately the utility must fall if the consumption is increased, and this is exactly what the law says.

(*iii*) *Suitable period. The unit must be taken within a reasonably continuous period of time.* Suppose you take your morning meal at 10 a.m. and your dinner at 8 p.m. If you eat nothing in between, the dinner will probably yield even greater satisfaction than your breakfast. But if you are asked to take another meal within an hour of the first, the law undoubtedly applies. The law, therefore, applies only when the units of the commodity are taken quickly one after another within a suitable period of time.

(*iv*) *Rare collections.* The law does not apply in the case of rare collections. If a person has a hobby of collecting rare coins, the larger the number he collects the greater will be his pleasure.

(*v*) *Normal persons.* When we discuss this law, we assume that *we are talking of normal persons.* But there are some abnormal people too, *e.g.*, misers. The more money a miser has, the greater is the satisfaction that he derives. The law, therefore, does not apply to abnormal persons like misers, drunkards, musicians, etc., who want more and more of the commodity they are in love with. In such cases the consumption excites further desire.

We may add that a change in a consumer's income, a change in fashion, a change in the other possessions of the consumer and sometimes a change in other people's possessions also seem to upset the Law of Diminishing Marginal Utility. *But in reality the law expresses a basic principle of human behaviour.* It has, therefore, universal application.

10. **Does the Law of Diminishing Marginal Utility Apply to Money ?** It is sometimes said that the law of diminishing marginal utility could not apply to money. Since money can command an endless variety of commodities and services, there can be no end to a craving for money. More money will be welcomed even if a person has already much of it. The more he has of it, the more he would like to have. It would enable him to enjoy not only a large variety of material objects, but would also bring him prestige, power and distinction. Therefore, it is urged that the law of diminishing marginal utility does not apply to money.

But a little thought will show that even money is no exception to the law. Every addition to our stock of money, however welcome it may be, yields less pleasure—we do not attach the same importance to it. As a man grows rich, he becomes careless in spending money.

He wastes it on useless luxuries which do him no good. It only means that a person does not attach the same importance to additional wealth, or that its marginal utility decreases. That is why the Government taxes the rich people. The richer they are, the higher the taxes they have to pay. The basis of the principle of progressive taxation is the law of diminishing marginal utility. Hence the law undoubtedly applies to money.

11. **Importance of the Law of Diminishing Marginal Utility.** As we have said above, the law of diminishing marginal utility expresses a basic principle of man's behaviour. The law is of immense use to man in almost every walk of life :

(1) We have seen that Government applies this law in the sphere of taxation. As a man's wealth increases, he is more heavily taxed, for the utility of money to a rich man is less than to a poor man. The principle of progressive taxation is based on this law.

(2) The law also applies to the determination of market price. An increase in the stock of a commodity brings a person less satisfaction ; therefore he can be induced to buy more only if the price is lowered. Thus greater the supply the lower should be the price to clear it, and *vice versa*.

(3) Socialists take their stand on this law when they advocate a more equal distribution of wealth. They argue that excessive wealth in the hands of the rich is not so useful from the social point of view, as it would be if this wealth is transferred to the poor. In the hands of the poor, it will satisfy more urgent needs. It is due to the law of diminishing utility that, beyond a certain point, wealth will have less utility for a rich man. If it is transferred to the poor, it will have much greater utility.

(4) The law of diminishing marginal utility regulates our daily expenditure. We know that as we go on buying more of a commodity, its marginal utility falls. Having only a limited amount of money at our disposal, we cannot waste it on unnecessarily a large quantity of any one commodity. We, therefore, stop purchasing it at a point where the utility of money spent is equal to the utility of the last unit of the commodity purchased. We spend the rest of our money on other commodities.

12. **Law of Substitution or Maximum Satisfaction or Equimarginal Returns.** This law is another fundamental principle of Economics. We have already seen that human wants are unlimited, whereas the means to satisfy those wants are strictly limited. Every prudent consumer, therefore, will try to make the best use of the money at his disposal and derive the maximum satisfaction.

In order to get maximum satisfaction out of the funds we have, we carefully weigh the satisfaction obtained from each rupee that we spend. If we find that a rupee spent in one direction has greater utility than in another, we shall go on spending rupees on the former objects till the marginal utilities in the two cases are equal. In other words, we substitute some units of a commodity of greater utility for some units of less utility. The result of this substitution will be that the marginal utility of the former will fall and

that of the latter will rise, till the two marginal utilities are equalised. This is called the Law of Substitution or Equimarginal Returns or Equimarginal Utility.

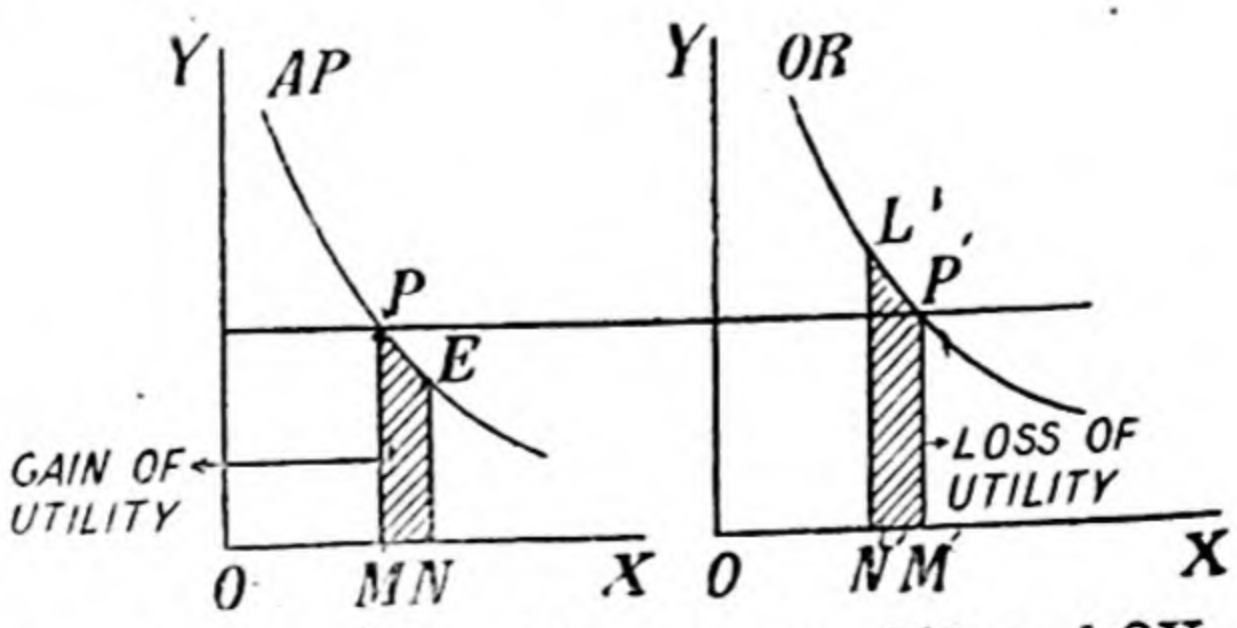
Look at the following schedule :

Units	*Marginal utility of oranges*	*Marginal utility of apples*
1	10	8
2	8	6
3	6	4
4	4	2
5	2	0
6	0	−2
7	−2	−4
8	−4	−6

Suppose apples and oranges are two commodities to be purchased. Suppose further that we have got seven rupees to spend. Let us spend three rupees on oranges and four rupees on apples. What is the result ? The utility of the 3rd unit of oranges is 6 and that of the 4th unit of apples is 2. As the marginal utility of oranges is higher, we should buy more of oranges and less of apples. Let us substitute one orange for one apple so that we buy four oranges and three apples. Now the marginal utility of both oranges and apples is the same, *i.e.*, 4. This arrangement yields maximum satisfaction. The total utility of 4 oranges would be 10 +8 +6+4=28 and of three apples 8 +6+4=18 which gives us a total utility of 46. The satisfaction given by 4 oranges and 3 apples at one rupee each is greater than could be obtained by any other combination of apples and oranges. In no other case does this utility amount to 46. We may take some other combinations and see.

We thus come to the conclusion that we obtain maximum satisfaction when we equalise marginal utilities by substituting the more useful for the less useful commodity. We can illustrate this principle with the help of a diagram.

Diagrammatic Representation of the Law of Substitution or Maximum Satisfaction.



In the two figures, given above, OX and OY are the two axes. On X-axis OX measure money and on Y-axis marginal utilities.

Suppose a person has 7 rupees to spend on apples and oranges whose diminishing marginal utilities are shown by the two curves AP and OR respectively. The consumer will gain maximum satisfaction if he spends OM money (3 rupees) on apples and OM′ money (4 rupees) on oranges because in this way the marginal utilities of the two are equal (PM=P′M′). Any other arrangement will give less total satisfaction.

Let the purchaser spend MN money (one rupee) more on apples and the same amount of money, N′M′ (=MN) less on oranges. The diagram shows a loss of utility represented by the shaded area LN′M′P′ and a gain of PMNE utility. As MN=N′M′ and PM=P′M′ it is proved that the figure LN′M′P′ (loss of utility from reduced consumption of oranges) is bigger than PMNE (gain of utility from increased consumption of apples). Hence the total utility of this new combination is less.

We, then, conclude that no other combination of apples and oranges gives as great a satisfaction to the consumer as when PM= P′M′, *i.e.*, where the marginal utilities of apples and oranges purchased are equal, with given resources at our command.

Limitations of the Law. (*i*) If the consumer is ignorant or blindly follows custom or fashion, he will make a wrong use of money. On account of his ignorance he may not know where utility is greater and where less. Or custom and fashion may prevent him from making a rational use of money. Hence his satisfaction may not be the maximum because the marginal utilities from his expense cannot be equalised due to ignorance, custom or fashion.

(*ii*) In the same manner, an incompetent organiser of business will fail to achieve the best results from the units of land, labour and capital that he employs. This is so because he may not be able to divert expenditure to more profitable channels.

(*iii*) The law has obviously no place where the resources are unlimited, as, for example, is the case with the free gifts of nature. In such cases there is no need of diverting expenditure from one direction to another.

13. **Practical Importance of the Law of Maximum Satisfaction.** This law is of great practical importance :

(1) A wise consumer consciously acts on this law while arranging his expenditure. In the words of S.E. Thomas, his "expenditure is so distributed that the same price measures equal utilities at the margin of different purchases." Every person must try to spend his income in a manner which yields him the greatest satisfaction. This he will be able to do only if he spends his money in such a manner as to obtain equal satisfaction from the marginal units of the various commodities he purchases.

(2) The law is also of great importance in production. The manufacturer has to use several factors of production. He wants maximum net profit. For this purpose he must substitute one factor for another so as to secure the most economical combination. He

will substitute labour for machinery, and *vice versa*, so that the marginal utility or marginal productivity of the two is equalised. In this manner, he will get most economical combination of his factors of production.

(3) The Government, too, is guided by this law in public expenditure. The public revenues are so spent as to secure maximum welfare for the community.

(4) The law also applies in exchange, because exchange is nothing else but substitution of one thing for another. When we sell a commodity, say sugar, we get money. With this money, we buy another commodity, say wheat. We have, therefore, really substituted sugar for wheat.

The law of substitution influences prices. When a commodity becomes scarce and its price soars high, we substitute for it things which are less scarce. Its price, therefore, comes down.

The law of substitution has thus very wide application. It applies in all branches of economic theory. It is applicable to the use of time, distribution of assets in various forms and the allocation of resources among various uses. It applies to the money now and its use in the future, *i.e.*, spending now and saving for the future. The law of substitution is thus undoubtedly of great practical importance.

14. **Consumer's Surplus.** This is one of the most important concepts in Economics. It was expounded by Alfred Marshall and needs careful study.

In our daily expenditure, we often find that the price we pay for a commodity is usually less than the satisfaction we derive from its consumption. In our own mind, sometimes we are prepared to pay much more for a commodity than we actually have to pay. People are often heard saying, "I would have paid much more than gone without it."

In some cases, the idea of consumer's surplus is quite obvious, *e.g.*, a packet of salt, a post-card, a newspaper, a match-box, etc. These things are very useful, but they are also very cheap. We are, therefore, prepared to pay much more for them, if need be, than we actually have to pay. From their purchase, therefore, we derive a good deal of surplus or extra satisfaction over and above the price that we pay for them. This is consumer's surplus.

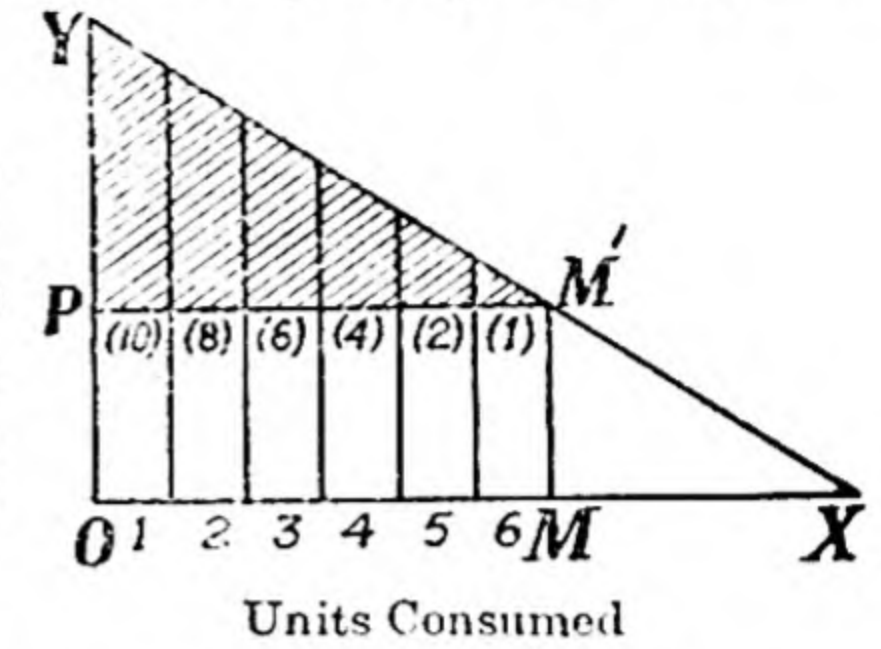
Consumer's surplus is the excess of what we are prepared to pay over what we actually pay for a commodity. It is the difference between what we are prepared to pay and what we actually pay.

Consumer's surplus = what one is prepared to pay *minus* what one actually pays.

We can illustrate the concept with the help of a diagram as given on page 65.

Diagrammatic Representation of Consumer's Surplus.

OX and OY are two axes. Units of the commodity consumed are represented along OX, and price and utility along OY. Let us suppose that one rupee in price is equal to one rupee worth of utility. Suppose a person buys six units. The sixth unit then is the marginal unit. Here the price and the utility are equal.



Now the price paid for the sixth unit is the same as paid for the other units. In all he spends, therefore, six rupees. But the total utility of all the six units consumed is (10+8+6+4+2+1)=31, or 31 rupees worth. Considering the utility the consumer would have been prapared to spend 31 rupees. But he actually spends only 6 rupees. He thus gets extra satisfaction worth 25 rupees. This is consumer's surplus.

The consumer's surplus is represented by the shaded area PM'Y. From the total utility (area enclosed by the curve and the axes) if you deduct the price actually paid (rectangle OMM'P), you get the consumer's surplus.

Consumer's surplus=Total utility—Total amount spent.

15. **Criticism of Consumer's Surplus.** The concept of consumer's surplus has been criticised on several grounds :

(1) It is said that this is purely imaginary idea. You just imagine what you are prepared to pay, and you proceed to deduct from that what you actually pay. It is all hypothetiual. One may say that one is prepared to pay anything. Hence it is unreal.

(2) It is *difficult to measure* consumer's surplus exactly. Few can say what they would be prepared to pay for a thing. Besides, different people are prepared to pay different amounts. It would be a hopeless task to put down how much each individual would be willing to pay. Hence the total consumer's surplus in the market cannot be measured.

(3) It is pointed out that, if the consumer knew that any such thing existed, he would go on buying more and more till the surplus utility he enjoyed disappeared. This is wrong. A consumer does not run after a surplus yielded by one commodity. He has to weigh the utilities of other commodities too.

(4) *It does not apply to the necessaries of life* or conventional necessaries. In such cases the surplus is immeasurable. What would not a man be prepared to pay for a glass of water when he is dying of thirst ?

Dr. Marshall has given a detailed reply to all these points of criticism. He points out that the concept is not so unreal as it is supposed to be. A man living in a city enjoys many amenities at low prices. If a man in a distant village were keen to enjoy them, he would have to spend much more. Thus a man earning Rs. 200 per mensem in a city derives greater satisfaction from its outlay than a man having the same income in some remote village. The

man in the city enjoys a consumer's surplus, because he can have more things and at lower prices.

16. **Importance of the Concept of Consumer's Surplus.** The idea of consumer's surplus is not merely bookish. It has great practical importance and is useful in a number of ways :

(1) It is *useful to a Finance Minister* in imposing taxes and fixing their rates. He will tax those commodities in which the consumers enjoy much surplus. In such cases, the people would be willing to pay more than they pay at present. Such taxes will bring in more income to the State. They will also mean comparatively less hardship than if taxes were imposed on commodities which do not yield much consumer's surplus.

(2) *To the businessman* also the concept is very useful. He can raise prices of those articles in which there is a large consumer's surplus. In such cases the consumers are willing to pay more than the prevailing price. The seller will be able to raise price especially if he is a monopolist and controls the supply of the commodity.

(3) Our knowledge of consumer's surplus proves useful when we compare the *advantage of living in two different places.* A place where there are greater amenities available at cheaper rates will be better to live in. In these cases the consumers enjoy large surplus of satisfaction. Consumer's surplus thus indicates conjectural advantages.

(4) Consumer's surplus draws a clear distinction between value-in-use and value-in-exchange. Commodities like salt and match-box have a great value-in-use but much less value-in-exchange. Being necessaries and cheap things, they yield, however, a large consumer's surplus. The consumer's surplus depends on total utility, whereas price depends on marginal utility.

(5) Consumer's surplus measures benefits from international trade. We can import things cheaply from abroad. Before importing them, we were paying more for similar home-produced things. The imports, therefore, yield a surplus of satisfaction. We would have paid for them more than what we actually pay. This is consumer's surplus. The larger this surplus, the more beneficial is the international trade.

17. **Economics of Spending.** The following few rules may be recommended for getting the money's worth out of one's expenditure :—

(1) *Luxuries should be avoided.* At the time of spending money, we should always ask ourselves the question, "Can we avoid it without letting our health or efficiency suffer ?"

(2) *Expenditure should always be planned beforehand.* A proper budget should be prepared and all possible contingencies foreseen and provided against as far as possible.

(3) *We should know what we really want.* We should not go in for a thing simply because it happens to be cheap at the time.

(4) We cannot get our money's worth unless we are able to *judge the quality of the commodity.* An ignorant consumer may go in for an attractive looking, but less durable, commodity.

(5) *We should know where a thing can be bought cheap*, and we should not shirk the trouble of going there. If things are cheaper in Chandni Chowk, Delhi, we should not look to our convenience and do the shopping in Connaught Place.

(6) *One should be good at bargaining.* Most of us fight shy of higgling. We are to blame if the shopkeeper gets an advantage over us.

(7) *Above all, we should carefully discriminate between the various competing wants and make a suitable choice.* We should act upon the law of substitution or equi-marginal return, while arranging our expenditure.

(8) *We should go in for things which are durable* and yield satisfaction over a number of years. It is much better to spend Rs. 5,000 on a son's education than to spend Rs. 2,000 on his marriage. It is much better to go in for a radio set than to spend money on a dinner or a tea party, feeding those who are, perhaps, already suffering from indigestion.

It must be said, however, that every individual weighs the utility to be gained on the one hand and the sacrifice required to be made, on the other, *from his own point of view.* For instance, to pay one rupee more for an article in Connaught Place may mean less sacrifice for an individual than to trudge all the way to Chandni Chowk.

WHAT YOU LEARN FROM THIS CHAPTER

What is Consumption ? It means satisfaction of human wants by the use of commodities and services. It is also defined as destruction of utilities whether the destruction is quick or slow.

Mere destruction, however, does not mean consumption, not unless a human want is satisfied, *e.g.*, a house catching fire is not consumption.

Types of Consumption :

(*i*) *Direct or Final Consumption.* It relates to consumer's goods. They satisfy our wants *directly.*

(*ii*) *Productive or Indirect Consumption.* It means the use of machines and other intermediate goods.

(*iii*) *Wasteful Consumption* means destruction without yielding satisfaction.

Why is Consumption Studied Before Production ?

This study is logical. The desire to consume arises first and then the thing is produced. Also, consumption is recognised as more important than production.

Consumption and Production Go Side by Side.

People do not first produce and then sit down to consume. Both processes are going on simultaneously. Besides, everybody is both a consumer and a producer.

Importance of Consumption. It is the beginning as well as the end of all economic activity. Consumption governs the nature and volume of production. Consumer is a 'king' to a great extent as his desires govern production. Multiplicity of wants is the cause of all economic progress. Consumption influences all departments of Economics.

The Law of Diminishing Marginal Utility. The more we have of a thing, the less we want to have more of it. "The additional benefit which a person derives from a given increase of his stock of anything diminishes with growth of the stock that he already has."—(Marshall)

Limitations of the Law. The Law does not apply unless,

(1) the units are identical ;

(2) the units are of suitable size ; and

(3) the units are taken within a reasonable period of time.

(4) the law does not apply to rare collections ;

(5) the law does not apply to abnormal persons like misers, drunkards, etc. Here the character of the person changes as consumption proceeds.

Does the Law of Diminishing Utility Apply to Money ?

Yes, the law applies to money also. Money ceases to have the same importance as a man becomes richer and richer. The principle of progressive taxation is based on the fact that the law applies to money.

Importance of the Law of Diminishing Utility :

(1) It is applied in public finance, *e.g.*, progressive taxation.

(2) It is applied in business, *i.e.*, large supply means a lower price.

(3) A more even distribution of wealth is advocated on the basis of this law.

(4) The law regulates our expenditure.

Initial Utility is the utility of the first unit consumed.

Total Utility is the utility of all the units consumed.

Zero Utility is where a unit consumed makes no addition to the total utility.

Negative Utility is when instead of satisfaction, dissatisfaction results from the consumption of a unit.

Marginal Utility is where it is just worthwhile to consume, or where the benefit derived and the price paid are just equal. *Price measures marginal utility.* Marginal Utility is the addition to the total utility made by the consumption of a unit that is considered just worthwhile.

The Law of Maximum Satisfaction or the Law of Substitution or Equimarginal Returns.

In order to get the maximum satisfaction from the limited resources that a person has, he substitutes, in his consumption, a commodity of greater utility for one of less utility. In this way, the marginal utilities of his purchases are equalised and the satisfaction is maximised.

Limitations of the Law : The law will not hold good—

(*a*) when the consumer is either ignorant or is a slave of fashion or custom ;

(*b*) when the producer is incompetent and cannot compare the productivities of the various factors of production or of their respective units ;

(*c*) when resources are unlimited.

Practical Importance of the Law :

(1) By acting on it, a consumer maximises his satisfaction.

(2) The businessman maximises his profit.

(3) The Government promotes maximum welfare from a given amount of public revenues.

Consumer's Surplus. The excess of what a man is prepared to pay for a thing over what he actually pays is the money-measure of consumer's surplus.

Consumer's surplus = Total Utility—(Units Purchased × Price).

Criticism :

(1) It is hypothetical and imaginary.

(2) It is difficult to measure.

(3) Consumers would exhaust it if they knew of it.

(4) It does not apply to necessaries of life.

Although the existence and extent of consumer's surplus cannot be scientifically proved, yet it is not illusory. There is a reality about it. It brings out the importance of favourable environment.

Its Importance :

(1) It is important in public finance. Things which yield a large consumer's surplus are fit objects for taxation.

(2) A monopolist can raise the prices of such articles.

(3) It helps us to decide which is a better place to live in.

Economics of Spending. The following rules may be observed to get money's worth :—

(1) Avoid luxuries.

(2) Plan out your expenditure in the form of a budget.

(3) You must be a judge of quality.

(4) You must know where you can buy cheap and go there.

(5) You must not fight shy of higgling.

(6) You must know what you really want.

(7) Carefully decide what you should buy and what you should not buy.

(8) Buy objects yielding lasting rather than short-lived pleasure.

NOW TRY TO ANSWER THE FOLLOWING QUESTIONS

1. What is consumption ? Will you consider the following as consumption ?

(a) Seeing a cinema show ; (b) Taking a glass of water from a domestic servant ; (c) Looking at a watch. Give reasons for your answers. (*Delhi 1919*)

2. How do you distinguish between 'direct consumption' and 'indirect consumption' ? Give three examples of each.

3. What is meant by consumption in Economics ? Give the forms and importance of consumption in economic theory. (*P.U. Pre. University 1962*)

4. Will you regard the following as an act of consumption or as an act of production ?

(i) Reading of a book by a teacher in a class.

(ii) Reading of a book by a teacher at his house.

(*Pb. University H.S. 1961*)

5. "Consumption is the sole end and purpose of all production." Do you agree ?

[See Sec. 4.] (*Ajmer 1948 ; P.U. 1955*)

6. Explain the concepts of marginal utility, total utility and equimarginal utility and show how they are useful in guiding the individual in the purchase of various commodities. [See Secs. 6, 7.] (*Sardar Vallabhbhai Vidyapeeth 1955*)

7. "The Law of Diminishing Utility holds good for all kinds of satisfactions." Explain and examine this statement. (*U.P. 1955*)

Or

State and explain the Law of Diminishing Utility. What are its limitations ? [See Secs. 6-9] (*Pb. Univ. H.S. 1962, Utkal Inter. Arts 1960 Suppl.; Ajmer 1955 ; Rajasthan H.S. 1960*)

8. Give five different types of examples where the Law of Diminishing Marginal Utility does not apply.

9. Discuss the significance of the Law of Diminishing Utility (a) in taxation and (b) in the theory of value.

[See Sec. 10]

Or

Explain the Law of Diminishing Utility and discuss its importance in Economics. (*J. & K. 1957 ; P.U. 1956 ; C.U. 1956 ; U.P. Board 1956*)

[See Secs. 6 and 11.]

10. What do you understand by 'marginal utility' ? How does it influence price ? (*Delhi Prep. 1962*)

11. Enunciate the Law of Maximum Satisfaction. Illustrate with a diagram and discuss its practical importance. (*P.U. 1953 Suppl. ; U.P. Board 1956*)

[See Secs. 12 and 13.]

12. How would you spend a rupee on the purchase of tea, sugar and milk if their marginal utilities are as under ?

	1st Chhtk.	2nd Chhtk.	3rd Chhtk.	4th Chhtk.	5th Chhtk.
Tea	100	80	60	40	20
Sugar	80	60	40	20	10
Milk	60	43	20	10	5

The prices per chhatak are : tea 4 as., sugar 2 as., milk 1 a.

(*Ans.* 2 chhtks. of tea, 3 of sugar and 2 of milk.) (*J. & K. 1960*)

13. Explain and illustrate the law of equimarginal utility. Draw diagram. Examine the scope of its application. [See Secs. 12 and 13]

(*P.U. Pre. Univ. 1962 ; Rajasthan 1960 ; Utkal Inter. Arts 1959 Suppl. ; P.U. 1958 ; Delhi H.S. 1958*)

14. Explain how the Law of Substitution is useful to (*a*) *a consumer and* (*b*) *to a businessman.*

15. What do you understand by Consumer's Surplus ? Mention any three articles from your domestic consumption in which you enjoy large consumer's surplus.

[See Sec. 1. Salt, match-boxes and newspapers—these yield a large consumer's surplus.]

16. Explain clearly the doctrine of Consumer's Surplus and point out its main limitations. Use diagrams. [See Secs. 1 and 14.] (*Bombay 1940*)

17. Explain clearly the concept of Consumer's Surplus. What is its importance ? [See Secs. 1 and 15.] (*P.U. 1959 Suppl.*)

18. What do you understand by Consumer's Surplus ? How can it be measured ? (*Utkal Inter. Arts 1960*)

[See Secs. 1, 14 and 15. In valuation, consumer's surplus helps the monopolist in fixing price. In public finance it helps a Finance Minister in selecting commodities for taxation.]

19. From your study of consumption, can you lay down a few rules for spending money ? [See Sec. 16]

20. (*a*) *Fill in the blanks by using one of the words in brackets :—*

(*i*) *The more we have of a thing the ..... (less, more) we desire additional units of it.* (*P.U. H.S. 1961*)

(*ii*) *As we consume more of a commodity, its total utility ..... though at a diminishing rate. (Fill in the blank)*

(*b*) *What term is used in Economics for the following ?*

Additional satisfaction derived from the consumption of one more unit of a commodity. (*P.U. H.S. 1961*)

CHAPTER VI

UTILITY ANALYSIS : DEMAND

The wish to purchase plus the purchasing power

1. **Introduction.** In the preceding chapter we studied consumption. The consumer wants a commodity to satisfy his needs. But wanting or desiring a commodity is not 'demanding' it. The word 'demand' has a special meaning in Economics. Since this word is used in Economics again and again, it is necessary to understand it clearly.

2. **Meaning of Demand.** In ordinary speech, the word demand is used rather loosely, and it is often confused with desire.

Desire is the wish to have some thing or to enjoy a service. But *demand* implies more than mere desire. It means that the person is *willing and able* to pay for the object he desires. A beggar's desire to travel by air from Delhi to Bombay has no significance as he cannot pay for it. On the other hand, a businessman's desire to go to Bombay by air is 'demand', as he is able to pay for it, and is willing to do so. *Demand thus means desire backed by willingness and ability to pay.*

Both willingness and ability to pay are essential. If a man is willing to pay but he is unable to pay, his desire will not become demand. In the same manner, if he is able to pay but is not willing to pay, his desire will not be changed into effective demand. In order to change desire into demand, it is essential that he should be *both willing and able* to pay.

Besides, demand also signifies a price and a period of time in which demand is to be fulfilled. It is obvious that a person's demand for anything varies with the price at which it is offered. He buys more of it at a lower price, and less of it at a higher price. Similarly his demand varies with the period of time. A family's demand for wheat is much more for a month than for a day.

Demand may thus be finally defined as the quantity demanded at a given price and per unit of time.

The definition given here is that of *Price Demand*. Then there is *Income Demand* which means the quantities purchased at different incomes. Another type is *Cross Demand*. This refers to quantities purchased with reference to changes in prices of other inter-related goods.

3. **Demand Schedule.** If we write down the different quantities that an individual, or a group of individuals, would buy at different prices, we get that individual's or that group's demand schedule. The following is the demand schedule of a consumer of

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milk :—

Price	*Quantity demanded per day*
Re. 1·00 per seer	Nil
75 nP. per seer	Nil
60 ,, ,,	half a seer
50 ,, ,,	one seer
40 ,, ,,	two seers
25 ,, ,,	three seers
15 ,, ,,	four seers

Market Schedule. The above is the demand schedule of a particular individual. But we can also construct a market schedule showing the total quantity of milk demanded at different prices in a market by the whole body of consumers. We can divide them into three classes : 'A' with a monthly income up to Rs. 100, 'B'—Rs. 100 to Rs. 500 and 'C'—above Rs. 500. We can see how much will each class buy at each price, and then total them up as follows :—

Price per seer	*Demand of Class C (srs.)*	*Demand of Class B (srs.)*	*Demand of Class A (srs.)*	*Total (srs.)*
Rs. 2·00	2	—	—	2
Re. 1·00	5	2	—	7
75 nP.	5	3	—	8
60 ,,	5	3	1	9
50 ,,	5	4	1	10
40 ,,	5	4	2	11
25 ,,	5	4	3	12
15 ,,	5	4	4	13
5 ,,	5	4½	4½	14

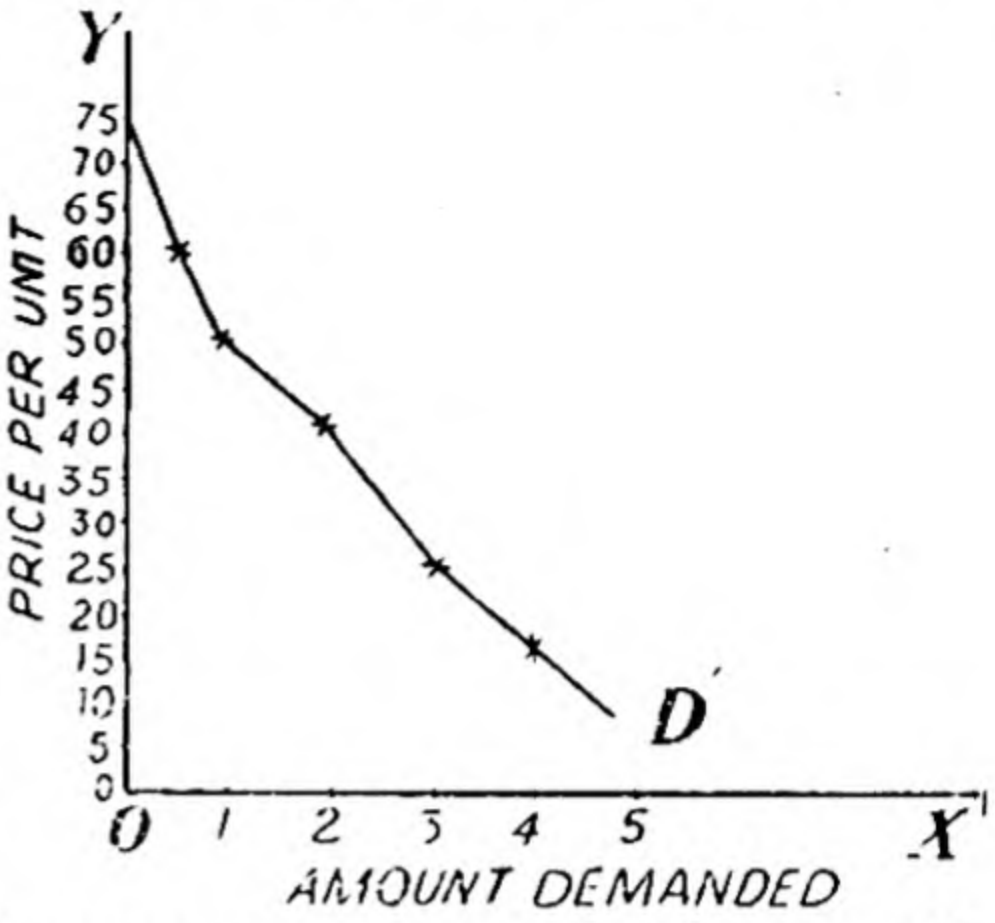
Difficulties in the construction of a Demand Schedule. It is difficult to frame the demand schedule of an individual. It is all hypothetical. An individual cannot positively say how much he would purchase if the prices were different. Some prices in the schedule are unreal. The price of milk may never be Rs. 2 or 5 nP. per seer. What is the use of asking an individual how much he would buy at these prices ? To construct a market schedule is still more difficult. Market schedule is even more hypothetical.

Practical Utility of a Demand Schedule. It is not possible to construct a scientifically accurate demand schedule. But it is true that different quantities are bought at different prices. The demand schedule is useful in the following ways :—

1. After all, businessmen do make an intelligent forecast of the quantity they could dispose of at higher or lower prices. Monopolists sometimes deliberately lower prices to stimulate demand. Businessmen would like to know the various quantities that are likely to be demanded at different prices. This would help them to forecast profits and to arrange production.

2. In order to find out the effect of different rates of taxes on the sale of commodity, a Finance Minister has to get the help of demand schedules. The calculations may be rough, but they are all the same useful. Imposition of tax is bound to raise prices which would in turn reduce demand. The Government revenue will depend on how much is actually sold. Demand schedule is helpful in making these calculations.

Demand Curve. With the help of the demand schedule of an individual given in Section 3, we can draw the curve as shown here. The quantities are measured along OX and prices in naye paise along OY.



When the price is 60 nP. a seer, the consumer purchases only half a seer. We travel half a point on OX-axis and plot a point against the 60 nP. We plot the other points in the same manner, and by joining these points we get the curve.

We find that the demand curve slopes downwards from left to right. Why ? We studied in Chapter V above that a consumer goes on buying a particular commodity till its marginal utility and price become equal. Only by doing so will he be able to maximise his satisfaction. When the price of that commodity falls, he must buy more to equate marginal utility and the price. This is so because, according to the law of diminishing marginal utility, marginal utility can be brought down only by consuming more of the commodity concerned. When price falls, demand as measured along OX increases. Hence the demand curve must normally slope downwards. Only in this way can smaller price lines meet larger quantities of the commodity.

It may be remarked that like the individual demand curve, we can also have a market curve by plotting the market demand schedule given above in Section 3. It should also slope downwards from left to right because when price falls (*i*) the old buyers will buy more, and (*ii*) some new buyers may also begin buying.

4. **The Law of Demand.** We have seen what demand means, and we have also studied the demand schedule. From the demand schedule we know that demand varies with price. We can now formulate the Law of Demand. This law says that demand varies inversely (in the opposite direction) with price, *i.e.*, if the price rises, demand contracts, and if the price falls, demand extends. Demand increases with a falling price and decreases with a rising price.

"*At any given time, the demand for a commodity or service at the prevailing price is greater than it would be at a higher price and less than it would be at a lower price.*"

The qualifying phrase '*at any given time*' is very important, for demand might be different at different times and under different conditions, even if the price does not alter.

Exceptions to the Law of Demand. The Law of Demand says that demand will extend when price falls, and contract when it rises. But the law does not apply to the following cases :—

(*i*) *If a shortage is feared*, more of a commodity will be purchased even when the prices are rising.

(*ii*) Less of a good will be purchased even when the price has fallen *if it has gone out of fashion.*

(*iii*) When the use of a commodity is considered a *mark of distinction* or honour, less of it will be purchased when its price has gone down and common people start buying it.

(*iv*) Sometimes, *people are not aware* of the fall in the price of a commodity, and they do not buy more.

These cases will be represented by exceptional demand curves, *i.e.*, curves sloping upwards instead of downwards.

5. **Increase and Decrease in Demand and Extension and Contraction of Demand.** The law of demand discussed above relates merely to the extension and contraction of demand. *When the demand changes merely because the price has changed, it is a case of extension or contraction.* Increase and decrease are different.

Increase and Extension. If a man buys more milk because its price has fallen, it is an extension of demand. But if the demand changes independently of the price, that is, a man buys more not because the price has fallen but for some other reason, say, due to a rise in his income, it will be called an increase of demand.

Extension—More demand at less price. Increase—More demand at the same price or the same quality demanded at a higher price.

An increase in a consumer's demand signifies that he is prepared to spend a larger amount of money on a commodity than before on account of some changes in his circumstances.

Decrease and Contraction. If a man buys less when the price rises, it is simply a case of *contraction of demand.* But if he buys less irrespective of the price, it means *a decrease in demand.* Here, due to a change in fashion or other circumstances, a consumer may buy less of a good even when the price remains the same or may continue buying the same quantity as before in spite of a fall in price.

Contraction—Less demand at a higher price. Decrease—Less demand at the same price or the same quantity at a lower price.

Fig. 1 on page 75 illustrates extension and contraction of demand. When the price falls from PM to P′M′, demand extends from OM to OM′. On the other hand, if the price rises from P′M′ to PM, the demand contracts from OM′ to OM. Here we travel up and down on the same curve signifying that the demand changes only due to a change in price.

Fig. 2 on page 75 illustrates an increase and decrease in demand. Here we get entirely new curves (the dotted ones) above or below the old curve. It shows that the conditions of demand have changed altogether. Take the curve II′. This illustrates an increase or a rise in demand. Formerly we purchased OM at the price PM. But now we buy OM at P′M price, which is higher ; we buy the same quantity but at a higher price. Or we buy more than before (OM′)

at the same price (KM′—PM). In the same way, the lower dotted curve *dd′* illustrates a decrease in demand.

Diagrammatic Representation of Increase and Decrease. Extension and Contraction of Demand.

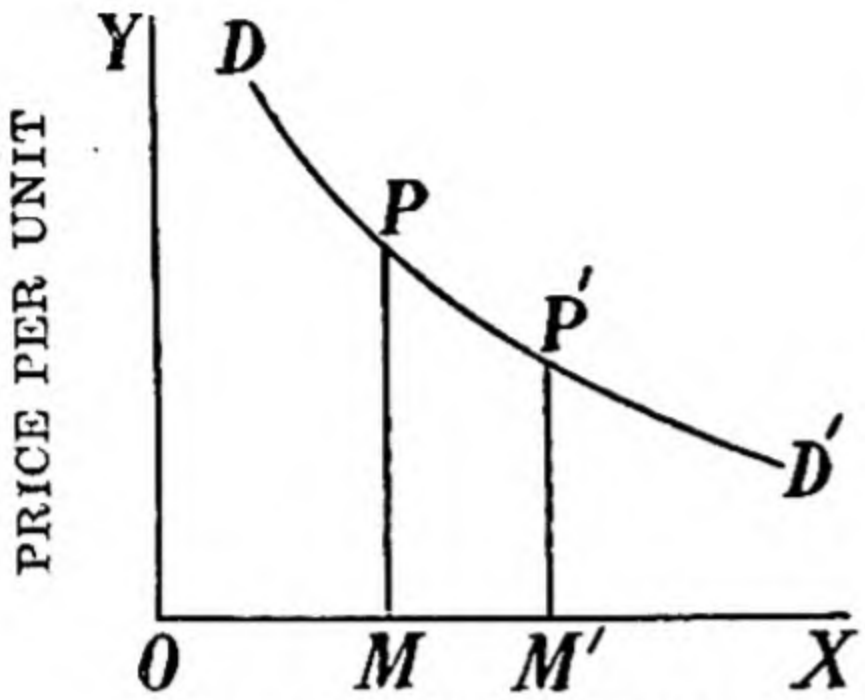


Fig. 1
Extension and Contraction of Demand

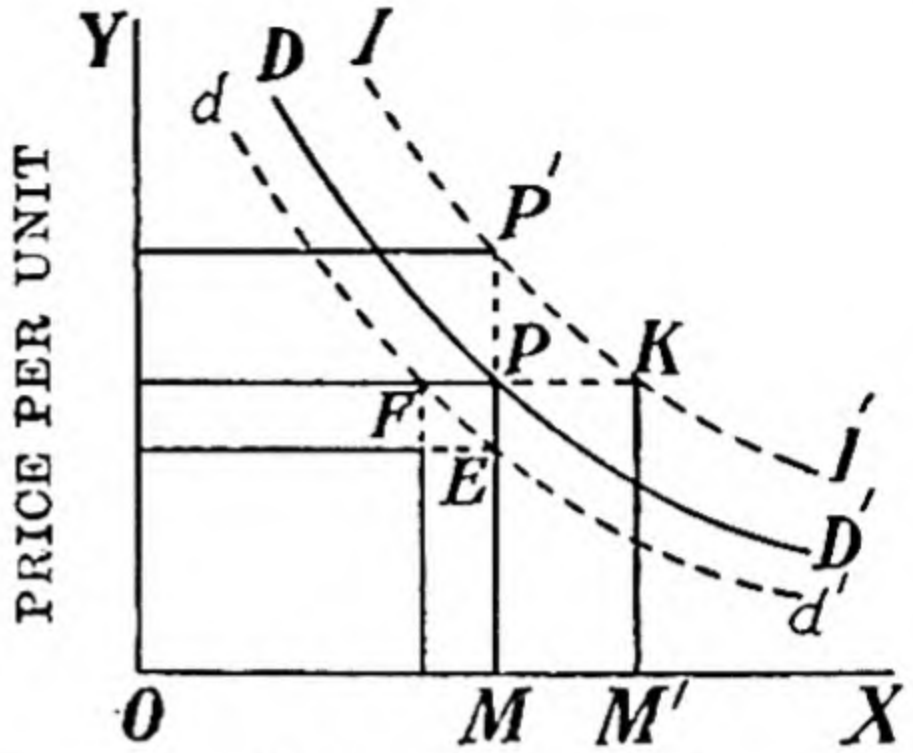


Fig. 2
Increase and Decrease of Demand

6. **Why Demand Changes.** A change in demand means an increase or decrease in demand, and not merely extension or contraction of demand. Therefore, when we want to know why demand changes, we have to mention such factors as create new conditions of demand so that the demand curve either shifts upwards (as II′ in Fig. 2 above) or it shifts downwards (as *dd′*). Obviously these factors are other than price.

The following are the factors (other than a change in price) which bring about changes in demand :—

(*i*) *Change in fashion.* When things go out of fashion, they will be less in demand, even though they may become cheap.

(*ii*) *Change in weather.* It has got the same effect as a change in fashion. Demand changes when the weather changes. A fall in the price of woollen clothes does not increase their demand in summer.

(*iii*) *Change in the quantity of money in circulation.* If the quantity of money in circulation increases, the people will have more purchasing power. Demand will consequently increase. This is the position in which we find ourselves at present. There has been inflation, demand has increased and prices have risen. A decrease in the quantity of money similarly works in the opposite direction.

(*iv*) *Change in population.* A change in the size or the character of population will bring about a change in demand. If the birth-rate increases in a country, more toys and perambulators will be demanded ; while another country with more old men will demand more walking sticks, false teeth and medicines.

(*v*) *Change in wealth distribution.* Suppose wealth comes to be more evenly distributed. The demand for necessaries and comforts commonly used by the poor people will increase, because the poor people will be better off. The demand for luxuries, on the other hand, will fall off.

(*vi*) *Change in real income.* Increase in real income means that things are cheap so that with the same money income people are able to buy more goods. It is not necessary that they should buy more of necessaries. The whole scheme of expenditure will be recast and the demand for commodities will, therefore, change. Some comforts might be added, and even luxuries.

(*vii*) *Change in habits, tastes and customs.* Demand depends on the tastes, habits and customs of a community. A change in any of these must bring about a change in demand. For example, if people develop a taste for tea in place of *lassi*, the demand curve for tea will shift upwards towards the right. That is, the demand for tea will increase.

(*viii*) *Technical progress.* Inventions and discoveries bring new things in the market with the result that old things are no longer wanted. Radio sets are nowadays replacing gramophones.

(*ix*) *Discovery of cheap substitutes.* Manufacture of vegetable ghee has made available a cheap substitute for ghee. The demand of pure ghee has consequently decreased.

(*x*) *Advertisement.* A clever and persistent campaign of advertisement may create new type of demand. This is the case with the demand for patent medicines and toilet accessories.

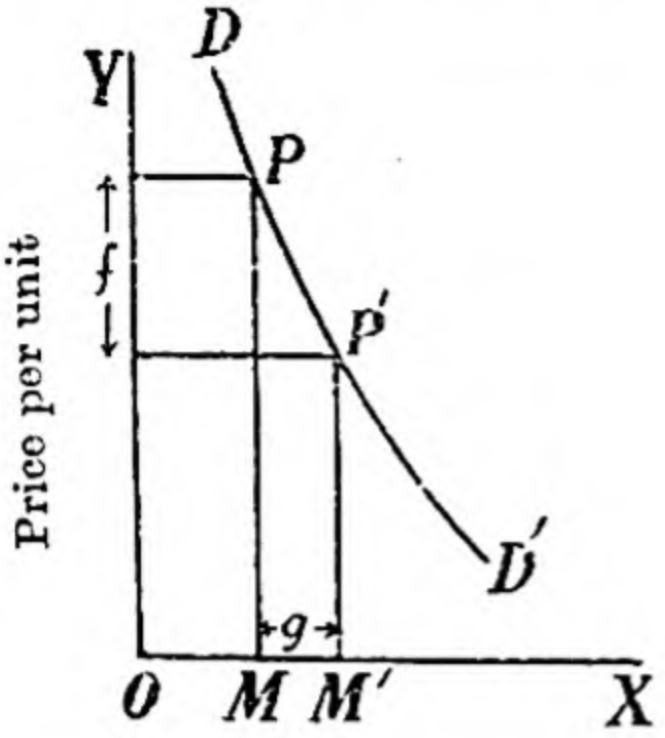
7. **Elasticity of Demand.** We have seen that demand extends or contracts respectively with a fall or rise in price. *This quality of demand by virtue of which it changes (increases or decreases) when price changes (decreases or increases) is called Elasticity of Demand. Elasticity means sensitiveness or responsiveness of demand to the change in price. In short, changing of demand with the change in price is called elasticity of demand.*

This change, sensitiveness or responsiveness, may be small or great. Take the case of salt. Even a considerable fall in its price may not induce an appreciable extension in its demand. On the other hand, a slight fall in the price of oranges may cause a considerable extension in their demand. That is why we say that the demand in the former case is 'inelastic' and in the latter case it is 'elastic'. The demand is elastic when with a *small* change in price there is a *great* change in demand; it is inelastic or less elastic when even a great change in price induces only a slight change in demand.

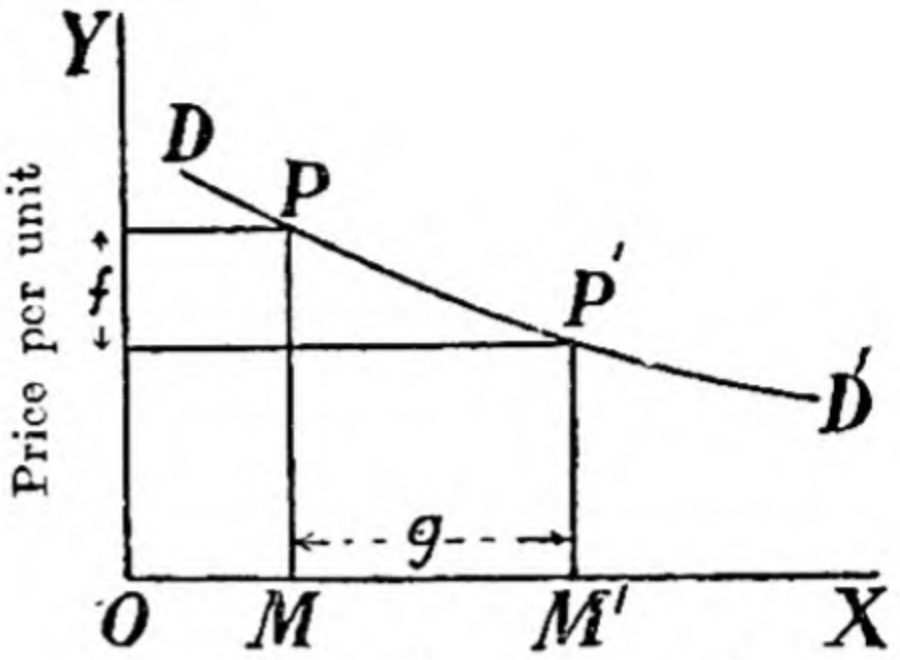
"The elasticity (or responsiveness) of demand in a market is great or small according as the amount demanded increases much or little for a given fall in price, and diminishes much or little for a given rise in price." —(*Marshall*)

But the demand cannot be completely 'elastic' or 'inelastic'. Completely elastic demand will mean that a slight fall (or rise) in the price of the commodity concerned induces an infinite extension (or contraction) in its demand. Completely inelastic demand will mean that any amount of fall (or rise) in the price of the commodity does not induce any extension (or contraction) in its demand. Both these conditions are unrealistic. That is why we say that elasticity of demand may be 'more or less'.

Diagrammatic Representation of Elasticity of Demand.



Quantity demanded.
Fig. 1. Less Elastic.



Quantity demanded.
Fig. 2. More Elastic.

In both these figures, f along the Y-axis represents the fall in price and g along the X-axis the increase in demand from OM to O'M.

In Fig. 1, the fall in price is considerable, but the increase in demand is slight. In this case, the demand is not so responsive to the change in price ; it is only slightly elastic or less elastic.

In Fig. 2, there is a small fall in price, but a great increase in demand ; it is, therefore, highly elastic or more elastic.

It should be carefully noted, however, that elasticity of demand is not indicated by the slope of the curve as is generally supposed. Elasticity of demand is always at a price. Different points on the demand curve have different elasticities of demand. By merely seeing the slope of the demand curve, therefore, we cannot say that the demand is less elastic or more elastic. Again, it is possible to draw a curve which may throughout its length represent unit (*i.e.*, same) elasticity even though it may have different slopes. This curve is known as a rectangular hyperbola.

8. **Measurement of Elasticity.** There are three methods of measuring elasticity of demand : (1) Total Expenditure Method ; (2) Dr. Marshall's Method ; and (3) Mathematical Method.

First Method. Under the first method, we measure elasticity by examining the change in the total expenditure due to a change in price. Look at the following demand schedule relating to handkerchiefs :—

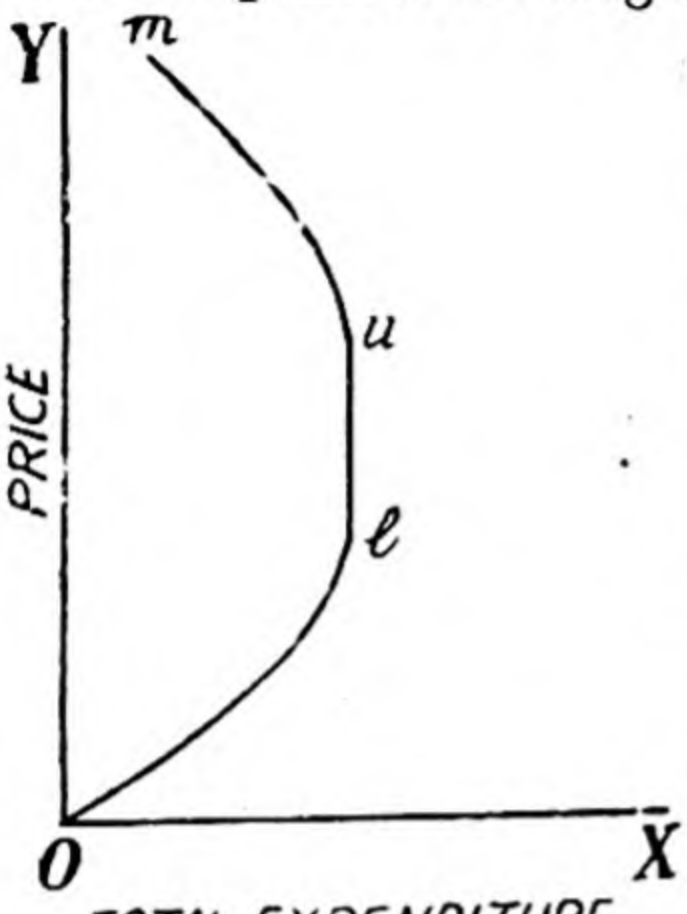
Price per handkerchief	*No. demanded*	*Total amount spent*	
Rs. 2.00	2	Rs. 4.00	...(1)
Re. 1.00	3	Rs. 3.00	...(2)
75 nP.	4	Rs. 3.00	...(3)
62 nP.	5	Rs. 3.10 nP.	...(4)

When the total amount of money remains the same (*e.g.*, between Nos. 2 and 3 above), the elasticity is said to be *unity*.

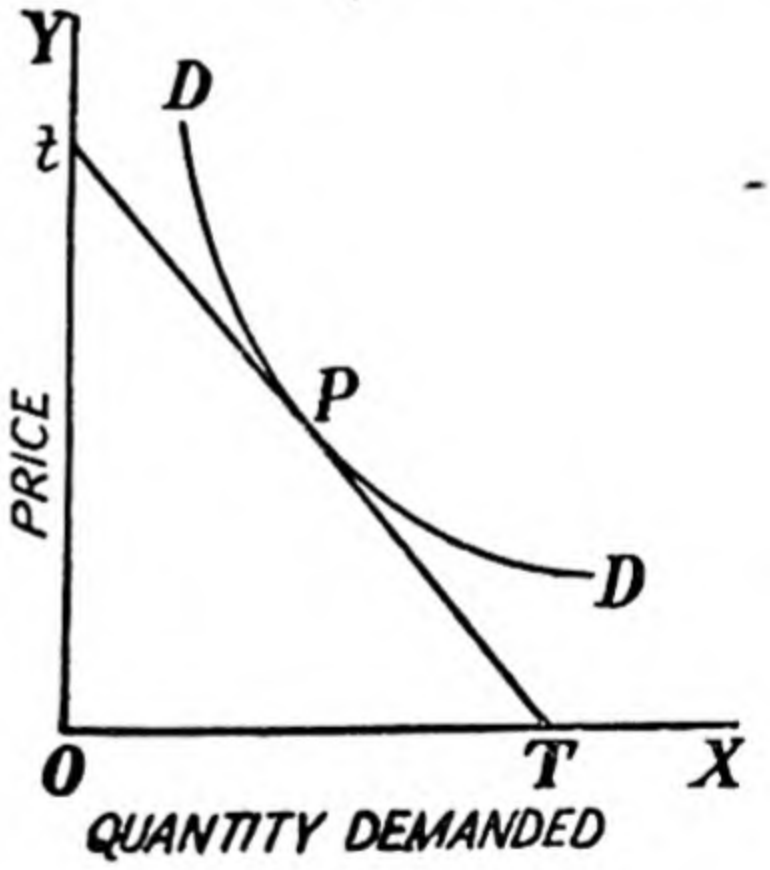
When the total amount of money spent increases with a fall in price (or decreases with a rise in price), the elasticity is said to be *greater than unity*, as between the two prices (*e.g.*, Nos. 3 and 4).

When the total amount of money spent decreases with a fall in price (or increases with a rise in price), the elasticity is said to be *less than unity* (*e.g.*, between the two prices Nos. 1 and 2).

We can also represent this method diagrammatically. Take total expenditure along the X-axis and price along the Y-axis. We get a backward sloping curve *Olum*. The portion *Ol* represents less than unity elasticity, because an increase or decrease in price increases or decreases the total expenditure. The portion *lu* represents unity elasticity because a change in price has got no effect on total expenditure. Portion *um* represents more than unity elasticity because an increase in price decreases the total expenditure and a decrease in price increases the total expenditure.



Second Method. According to this method, as put forth by Dr. Marshall, elasticity of demand on any point of the demand curve can be found out by drawing a tangent through the point. Suppose we want to know elasticity of demand at point P in our demand curve DD. Draw a tangent through P touching X-axis at T and Y-axis at *t*. Then elasticity of demand at point $P = \frac{PT}{Pt}$. Elasticity is more than unity, unity or less than, unity, according as P*t* is greater than, equal to, or less than PT.



Similarly, we can find out elasticity for any other point on the demand curve DD.

Third Method. Under this method, we measure elasticity by comparing the percentage change in price with the percentage change in demand. The elasticity of demand is unity, greater than unity, or less than unity, according as the change in demand is proportionate, more than proportionate, or less than proportionate to the change in price respectively. The elasticity is the ratio of the percentage change in the quantity demanded to the percentage change in the price charged. The formula is :—

$$\text{Elasticity} = \frac{\text{Proportionate change in demand}}{\text{Proportionate change in price}}$$

$$= \frac{\text{Change in demand}}{\text{Amount demanded}} \div \frac{\text{change in price}}{\text{price}}$$

9. **Relation of Elasticity of Demand with the Law of Diminishing Marginal Utility.** The concept of elasticity of demand is derived from the law of diminishing marginal utility.

The law of diminishing marginal utility states that, as we get more and more units of a commodity, the utility of each successive unit falls. Now in some cases the utility falls rapidly. For instance, if we put a little more of salt in our vegetables, the utility at once comes down so that we do not want more of it at all. In such cases the demand is inelastic. The price may rise or fall but we continue to buy the same quantity of salt Match-boxes serve as another good example.

But there are cases where the utility does not fall rapidly as the amount increases. We do not soon get fed up with such commodities. This is the case with all luxuries. In such cases the damand is elastic. If the price falls, more luxuries are purchased. For example, more eggs and fish are purchased by a man of moderate means if their price goes down.

Thus where the utility falls more rapidly as consumption is increased the demand is less elastic and where the utility falls only gradually, the demand is more elastic. This is how the elasticity of demand is connected with the law of diminishing utility.

10. **Relation between Elasticity of Demand and Consumer's Surplus.** We know that the demand for necessaries of life is relatively inelastic. Whatever their price, we must buy them. For necessaries we are prepared to pay much more than we actually have to pay as they are generally cheap. Hence, in cases there is a large consumer's surplus, for consumer's surplus is equal to the difference between what the consumers are willing to pay and what they actually have to pay. For luxuries we are not prepared to pay much more than we actually pay. For them our demand is elastic. The consumer's surplus in such cases is small.

So we may conclude that the consumer's surplus is large when the demand is inelastic, and small when it is elastic.

11. **Elastic and Inelastic Demands.** Here are a few rules which tell us when the demand is elastic and when it is less elastic.

(*i*) For *necessaries* the demand is *less elastic* or comparatively *inelastic*. We must buy them, whatever be the price. The price may rise or fall but the demand will remain practically the same.

(*ii*) For *luxuries* the demand is more elastic. A little fall in their price stimulates the demand and a little rise discourages it. Hence demand extends and contracts considerably when the price falls and rises respectively. The demand is elastic.

But it should be remembered that necessaries and luxuries are relative terms. What is the luxury for one may be a necessity for another. Thus for the same commodity the demand may be elastic for some people and inelastic for other people. Hence it is necessary to refer to the class of people with respect to whom the demand is elastic or inelastic.

(*iii*) For commodities having *substitutes* the demand is *elastic*, *e.g.*, tea and coffee. If the price of any one of them falls, it will be purchased in large quantities. If the price rises, demand for it will contract, and its substitute will be purchased instead. There is,

therefore, greater extension or contraction of demand for such commodities when their prices change. Demand for them is elastic.

(*iv*) When a commodity has *several uses*, its demand is *elastic*. With a fall in price such a commodity tends to be put to less urgent uses. Thus its demand extends, and *vice versa*.

(*v*) When we can *postpone* buying a commodity, the demand is *elastic*. More is purchased when the price falls, and less when it rises. For instance, if the price of warm suiting goes up, its demand will considerably contract because its purchase can be conveniently postponed.

(*vi*) Elasticity of demand depends on the level of prices. If price is too high or too low, the demand will be comparatively inelastic. For moderate prices it is elastic. When the prices are already too high or too low, a small change in them will not affect the demand much.

12. **Importance of the Concept of Elasticity of Demand.** The concept of elasticity of demand has great practical importance :

(1) It guides the businessman in fixing the prices of his goods. If the demand for a commodity is inelastic, he knows that the people must buy it whatever be the price. In such cases he will be able to raise the price. If he is a monopolist he will certainly do so and earn a larger net profit. When the demand is elastic, a small fall in price will increase the sales and bring more profit.

(2) The Finance Minister also takes note of elasticity of demand when selecting commodities for taxation. In case he wants to be certain of the revenue, he taxes those commodities for which the demand is inelastic. People must continue buying them even though the prices rise with the tax. If the demand is elastic, people will buy less of them and the Government would get less revenue.

(3) In case of joint products, separate costs of production of the two commodities are not ascertainable. In such cases, price of each will depend on the elasticity of demand of each.

The transport authorities also fix the prices of the various services they sell, after considering their elasticity of demand for the respective services.

(4) The volume of industrial output depends on the nature of demand. If the demand is elastic, by slightly reducing the price, sales can be increased, and the output too will increase.

(5) The concept of elasticity can explain how the farmers may remain poor even when there is a bumper crop. If the elasticity of demand for wheat is unity, the incomes of the growers would remain the same whatever the condition of the crop. In a year of bad harvest the rise in price would compensate for reduced output and in a year of good crop, the price will fall and thus reduce the income.

(6) Elasticity can also influence wages. If demand for a particular type of labour is inelastic, it can succeed in raising wages.

Thus the concept of elasticity has great practical importance in the various fields of applied Economics.

13. **Inter-connected Demands.** We have been discussing demand as if the demand for a commodity stands by itself. Actually this may not be the case. Demand for one commodity may be connected with that for another, and often it is.

The following cases may be noted :—

(*a*) **Joint Demand.** *When several things are demanded for a joint purpose, it is a case of a joint demand.* Milk, sugar, and tea leaves are wanted for making tea. Bricks, mortar, wood, and the services of carpenters and masons are all needed for building a house. These are cases of *joint demand.*

A commodity may be demanded jointly with others in many groups. Milk, for instance, is wanted not merely for making tea, coffee, and ovaltine, but it is also wanted for preparing *Rasgullas* and *Barfi.*

When commodities are jointly demanded, their prices are influenced by the demand for the ultimate object. For example, the price of bricks and the wages of masons are greatly affected by the demand for houses. The price of each constituent will depend on how urgently it is needed.

(*b*) **Direct and Derived Demand.** In the above example, the demand for the ultimate object, *e.g.*, a house, is called *Direct Demand*, while the demand for the various kinds of labour and materials which go to make the final product is *Derived Demand.*

Demand for bricks and mortar is derived from the demand for a house. It is really the house that we want ; other things are wanted only because we need a house.

(*c*) **Composite Demand.** *The demand for a commodity that can be put to several uses is a composite demand.* It is composed of the demand for each of the several uses. Coal can be used for heating, cooking and for running steam-engines. Demand for coal is composed of its demand for all these uses. It is thus a case of composite demand.

How prices in all these cases of inter-connected demand are determined will be explained in a later chapter.

WHAT YOU HAVE LEARNT FROM THIS CHAPTER

Demand means desire backed by willingness and ability to pay for a commodity.

Demand is always at a price and per unit of time. Demand may, therefore, be defined as the quantity demanded at a given price over a period of time.

Demand Schedule. It is a statement in a tabular form giving the various quantities of a commodity demanded at different prices. It is hypothetical and is not scientifically accurate. But it is of great practical use. It helps to solve problems in business and taxation.

Law of Demand. "At any given time the demand for a commodity or service at the prevailing price is greater than it would be at a higher price and less than it would be at a lower price." Or, "Demand extends when price falls and contracts when price rises."

Exceptions :

(1) More will be demanded at a higher price if shortage is feared.

(2) Less will be demanded even when the price is lower if the article has gone out of fashion.

(3) The law does not apply to things used as marks of distinction.

(4) The law may not apply when purchasers are ignorant.

Increase of Demand and Extension of Demand. *Extension of Demand* means that more is demanded when the price falls.

Increase in demand means that more is purchased at the same price, or the same quantity is purchased at a higher price.

Decrease of Demand and Contraction of Demand. Contraction of Demand means that less is purchased when price rises.

Decrease in demand means that less is purchased at the same price, or the same quantity is purchased at a lower price.

Causes of Changes in Demand. A change in any one of the following will bring about a change in demand : Fashion, weather, money, income, population, wealth distribution, real income, habits, customs, technical progress, discovery of substitutes, advertisements, etc.

Elasticity of Demand. It means sensitiveness or responsiveness of demand to changes in price. "The elasticity of demand in a market is great or small according as the amount demanded increases much or little for a given fall in price and diminishes much or little for a given rise in price." —(*Marshall*)

Measurement of Elasticity. When the total amount of money spent remains the same, the elasticity is unity ; when the total expenditure increases with a fall in price or decreases with a rise in price, elasticity is greater than unity. When the total expenditure is less due to fall in price or more with a rise in price, it is less than unity. Or we can say that elasticity is unity, greater than unity, or less than unity according as the change in demand is proportionate, more than proportionate, or less than proportionate to the change in price respectively.

Relation of Elasticity to the Law of Diminishing Utility. The demand is inelastic if the utility falls rapidly, and elastic if the fall in utility is slow or gentle.

Relation of Elasticity to Consumer's Surplus. The consumer's surplus is large when the demand is inelastic and small when it is elastic.

Cases where demand is inelastic and where it is elastic :

(1) Necessaries—inelastic.

(2) Luxuries—elastic. But luxuries and necessaries are relative terms.

(3) For substitutes—elastic.

(4) When a commodity has several uses, it is elastic.

(5) When demand can be postponed, it is elastic.

(6) Degree of elasticity also depends on the level of prices.

Importance of Elasticity of Demand :

(1) It helps a businessman, especially a monopolist, in fixing price.

(2) It is useful in public finance for selecting commodities for taxation.

Inter-connected Demand :

Joint Demand is when things are wanted together for a common purpose, *e.g.*, several materials needed for building a house.

Direct Demand. The demand for the final product is called direct demand.

Derived Demand. The demand for the material required to make a commodity is called derived demand.

Composite Demand. When a commodity has several uses, the demand for it is composed of all those uses.

CAN YOU ANSWER THE FOLLOWING QUESTIONS ?

1. *What is Demand ? Can you draw a market demand curve for sweets during the Diwali festival ?* (*Delhi 1949*)
[See Secs. 2 and 3.]

2. *What do you understand by 'demand' ? When is demand said to increase or decrease ?* (*Delhi H.S. 1958*)
[See Secs. 2 and 5.]

3. *Write a note on the demand schedule. What are the difficulties in the preparation of a market demand schedule ? What is its practical utility ?* (*C.U. 1941*)
[See Sec. 3.]

4. Prepare the demand-schedule of your family for milk. Draw the corresponding demand curve.

5. Explain the Law of Demand. Explain its limitations.
[See Sec. 4.] *(Saugar ; C.U. 1953*

6. Explain why the demand for commodity falls when its price rises. Is it always true ?
[See Sec. 4.] *(Patna 1954)*

7. Examine the factors which bring about a change increase or decrease in demand for goods. [See Sec. 6.] *(P.U. 1955)*

8. How would you explain the differences in the following examples of demand :— (a) Demand for ice in summer and winter; (b) demand for woollen cloth in the month of January in Calcutta and Ludhiana ; and (c) demand for mangoes in Saharanpur in the month of July and January.

9. State the Law of Demand. What are its limitations ? With the help of a diagram show the distinction between (a) increase in demand and extension of demand ; (b) decrease in demand and contraction of demand.
[See Secs. 4 and 5.] *(P.U. 1959)*

10. Explain the concept of elasticity of demand. Show how elasticity of demand is related to the law of demand. *(Delhi 1953)*

[See Section 7. The law of demand states that demand varies with changes in price and elasticity tells us whether it varies much or little.]

11. What do you understand by "Elasticity af Demand" ? Explain the factors which govern it. (P.U. H.S. 1962 ; Delhi H.S. 1961 ; U.P. Board 1956 ; Bihar 1956)

12. Explain with the help of diagrams the concepts of 'elasticity of demand". How does elasticity of demand vary with different commodities for different price ranges and for different regions (say Punjab and Rajasthan) ?
[See Sec. 7.] *(P.U. Inter. 1961)*

13. What do you mean by Elasticity of Demand ? With reference to elasticity why do salt, tea, and motor cars differ ? *(P.U. 1939)*

[Salt is a necessity of life and has, therefore, inelastic demand. Tea is to some extent a substitute for coffee ; therefore the demand is elastic. Motor Car is a luxury and the demand is elastic.]

14. Explain "Elasticity of demand". Some commodities have more elastic demand than others. Why is it so ? *(Delhi Prep. 1962)*

Why is the demand for necessaries inelastic, and that for comforts and luxuries elastic ? [See Secs. 7 and 11.] *(Utkal Inter. Arts 1959 Suppl.)*

15. Explain with the help of a diagram the concept of elasticity of demand. What is its importance in its economic analysis ?
[See Secs. 7 and 12.] *(P.U. 1958)*

16. In what way is the concept of elasticity of demand useful to :—
(a) A Finance Minister.
(b) A manufacturer.
(c) A monopolist.
(d) A tracer.
(e) A labour leader ?

17. Can you tell why a monopoly in matches is more profitable than a monopoly in kerosene oil ?

18. Distinguish between joint demand and composite demand.
[See Sec. 13.]

19. Fill in the blanks by using one of the words given in brackets :— (P.U. 1944
(i) As the price of a commodity goes up, the demand for it.....(contracts increases).
(ii) The demand for milk, sugar and tea leaves is a case of.....(joint demand, composite demand).
(iii) The demand for salt is.....(elastic, inelastic).
(P.U. Pre-Univ. 1961

(iv) *If shortage is feared.....(more, less) will be demanded at a higher price.* (*P.U. Pre-Univ. 1961 Suppl.*)

(v) *When two or more goods are demanded together, it is a case of..... (joint, composite) demand.* (*Pb. Univ. H.S. 1961*)

(vi) *If more is demanded at the same price, it is a case of.....(extension, rise) in demand.*

(vii) *Demand for the commodities which are jointly demanded is relatively .....(less elastic, more elastic).*

(viii) *Elasticity of demand for a commodity is said to be.....(greater than unity, less than unity) if the total expenditure on the commodity increases in the event of a rise in its price.* (*P.U. Pre-Uni. 1962*)

CHAPTER VII

NATURE OF PRODUCTION

Producing value rather than utility

1. **Introduction.** We have finished the study of Consumption and now we proceed to study Production.

We know that an intimate relation exists between consumption and production and that the two are mutually interdependent. As a matter of fact, they are different stages in the same process, consumption being the final one. Besides, the same stage may be considered both consumption and production. For instance, a carpenter who makes a table is producing a piece of furniture and is consuming wood at the same time. He is thus *both a producer and a consumer.*

Let us now turn to the nature of production.

2. **What is Production ?** A carpenter makes a table. He has produced wealth. But he has not produced wood ; it was already there. What, then, has he really done ? He has changed the form of the wood and given it utility which it did not possess before. He has thus created what is called '*Form Utility*'. Conversion of cotton into cloth and sugarcane into sugar are other examples of form utility. In fact, we can notice this type of utility in all manufacturing industries.

If he sends the table to a big city, it will fetch a high price. Now it acquires additional utility. Its transport to the city means the creation of '*Place Utility*'. Transporting of goods from the places where they are cheap to places where their prices are high, is creating a place utility. It gives the commodity an additional value.

In case he keeps it with himself till tables are in greater demand, he may further add to its price. This storing creates '*Time Utility*'. Fruits and vegetables are kept in cold storages to be sold for consumption in the off season. Wheat may be kept in godowns to be sold when prices rise. These are some examples of time utility. It is time which gives them more value.

In all these cases, *wealth* has been produced, but not *matter*. Just as man cannot destroy matter, so he cannot create matter. In the above cases, he has simply created utilities.

These are the three types of utilities :— (*i*) Form Utility, (*ii*) Place Utility, and (*iii*) Time Utility.

Does production then mean merely creation of utility ? In the examples cited above, utilities have been created and physical goods or wealth produced. However, this may not always be the case. A utility may be created which cannot be sold in the market. For

example, a tube of oxygen will find no market in the plains as there is abundance of it in the air. The provision of such utility—and oxygen is a big utility—cannot be considered production. A thing may possess utility, but it may have no value, *e.g.*, air. Production, in Economics means production of wealth or value and not merely utility. *Production is, therefore, best defined as the creation or addition of value or wealth. It may consist not only of goods but also of the services of doctors, teachers, etc.* Production, in short, does not mean creation of all utilities, but only such utilities as have value-in-exchange.

From the above, it is clear, that the act of *production is not complete till the commodity reaches the hands of the consumers.* A table cannot be considered as 'produced' just when it has been made. It must pass through various agencies and reach the final consumer before it can be considered.

In Economics, we are not concerned with the technical process of production ; we do not study how cloth is actually woven. We do not learn the art of making it. That is the work of spinners, weavers, and dyers. The student of Economics has simply to note the various stages through which cotton passes—ginning, carding, spinning, weaving, bleaching, etc.—till it reaches the hands of the final consumer. We are concerned with economic aspect, *i.e.*, cost, price, profit, etc., and not technical aspect.

Can there be over-production ? From the consumers' point of view there can never be any over-production. They can always consume all that has been produced and need still more. Even in the richest countries there are hungry mouths, ill-clad bodies, and unshod feet. The term 'over-production' is not used in the sense that the supply is more than can be consumed physically. Over-production is from the producer's point of view. There are times when things produced cannot be sold at a profit. The cost of production may be higher than the prevailing price so that it is unprofitable to sell the goods at that price. Also, owing to widespread unemployment demand for goods may fall off. Thus there is glut in the market which we call over-production. It may be due either to faulty organization of industry or to too optimistic anticipations of producers, or wrong estimates of costs and prices.

3. **Classification of Productive Occupations**. Productive occupations can be classified as under :—

(*i*) **Industrial Occupations**. They are of the following two types :—

(*a*) *Extractive Industries.* Growing of crops, extraction of minerals and fishing are usually included in this group.

(*b*) *Manufacturing Industries, e.g.*, making sugar out of cane, cloth out of cotton, steel out of pig iron, and so on.

(*ii*) **Commercial Occupations**. The following activities are included in this group :—

(*a*) *Activities of businessmen* including brokers and other middlemen in buying, selling and stocking.

(*o*) The work of *transportation* performed by carts, lorries, railways, etc.

(*c*) The services of *booking and insurance companies* in mobilising capital and supplying it to trade and industry.

(*iii*) **Direct Services to Consumers**. These include the personal services performed by lawyers, doctors, teachers, domestic servants, etc., to their employers. They also include the services of government officials, army, navy and air force.

4. **Factors Affecting Production**. There are several factors which go to determine the volume of production in a country. They are :

(*i*) *Natural Factors.* The amount and nature of production in a country depends on its climate, nature of the soil, rainfall, etc. Production is diminished by natural calamities like earthquakes, floods, droughts and hailstorms.

(*ii*) *Political Factors.* The form and character of government have a great deal to do with the volume of production in a country. In Russia, the Soviet Government has brought about tremendous increase in production through planning. For a long time, the foreign Government in India encouraged the production of raw materials and discouraged manufacturing industry in the country.

(*iii*) *Technical Progress.* Production largely depends on the state of scientific knowledge and technical progress in the country. Discovery of new meterials, new processes and new machines is bound to increase the volume of production.

(*iv*) *Development of credit and banking and means of transportation and communication.* Without a sound banking system and efficient and cheap means of transportation and communication, production is bound to suffer. These are the prime needs of a country if production is to be increased.

(*v*) *The character of the people* inhabiting a country also exerts an important influence on the nature and volume of its production. Hard working, educated and sober people can always produce relatively more and better goods than those who do not possess such qualities.

5. **Factors of Production.** The production of wealth neèds the co-operation of several factors. For the making of cloth, for example, we need the services of land to supply us with cotton as well as the services of spinners and weavers to transform it into cloth ; we also need money to buy machines and tools. Above all, an organiser is needed to organise the whole business and coordinate the work of the various factors employed. These factors have been called by economists *Land*, *Labour*, *Capital* and *Organisation* (or *Enterprise*) respectively. These factors are also called 'inputs' and the production is called 'output'.

By *land* we mean, not merely soil, as is commonly understood, but all the natural resources on land, in water and air available to man. It stands for natural resources.

Labour means not merely the work of a coolie or of an unskilled labourer but all types of work, mental and manual, undertaken

for getting an income. Any type of work for earning an income i called labour in Economics.

Capital means not only cash used in business but it also includes tools, machinery and appliances used in production.

Organisation or enterprise is the work of bringing the above three factors together and making them work harmoniously. This includes the process of rewarding them for their labour too. It means not only organising a business but also taking the risk.

The factors are supplied by *landlords*, *labourers*, *capitalists* and *organisers* (or *entrepreneurs*). Their respective incomes are called *rent*, *wages*, *interest* and *profit*.

6. **Are these Four Factors Reducible to Two?** Some economists put forward the view that there are not four factors but only two original or basic factors. They argue that capital is not an original or independent factor, but is the result of saving. Labourers work on land and produce more than they immediately consume. Thus a part of what is produced is saved and changed into those forms of wealth which aid further production. This is capital. It has no independent existence and should be included in land and labour. It is the product of land and labour.

As for organisation or enterprise, it is pointed out that it is only a form of labour. Economists include in labour all types of work, mental and manual. Why not Organisation too ?

We are thus left only with two factors, *viz.*, *Land* and *Labour* or *Nature* and *Man*. The other two factors, capital and enterprise, are included in them.

The above position is quite logical, but not realistic enough. Capital in modern times is of tremendous importance. It has thrown labour in the background and overshadowed land in importance. Who can deny that the capitalist dominates today ? Production without capital would be negligible. Owing to its intrinsic importance, capital must be assigned an independent place among the factors of production.

Further, although organisation is a type of mental work, yet this work must be considered distinct from ordinary mental labour. It is of a specialised type. It not only consists in initiating, directing, controlling and supervising the entire process of production, but, above all, in taking risk. Risk-taking is not mere labour. In modern times, when the other three factors of production lie scattered, and production is so very complicated and costly, the importance of the services of the organiser or *entrepreneur* cannot be over-estimated. He must have a place of his own, and a very high one too, among the factors of production.

We thus come back to the view that there are not two but four factors of production : land, labour, capital and organisation.

7. **Modern View of the Number of Factors of Production.** Economic thinkers of to-day like Benham, contend that the factors of production are neither two nor four but millions. Anything which goes into production is a factor. Every acre of land is a factor by itself, and so is every worker, each rupee, and each individual

entrepreneur. There are millions of each of these factors. Indeed the number is incalculable. The utmost we can do is to group together all similar acres of land, all similar workers, all similar machines and all *entrepreneurs* in the same line and count each group as one factor. But even thus the number of factors would run into thousands.

The modern economists object to the traditional classification on the ground that dissimilar things are grouped together. For example, they ask, how can the work of a mason and the work of a typist be put under the same label 'labour' ? They also say that, as these factors are subject to the same economic principles, there is no point in keeping them separate.

The argument is plausible but we shall adhere to the old four-fold classification of the factors of production. It makes for a convenient and clear study of the department of production. We do not want to confuse the student with niceties at an early stage of his study.

8. **Efficiency of the Factors of Production.** Production does not depend merely on the size of a factor. It also depends, and very largely too, on its efficiency, *e.g.*, its capacity to produce. One may have thousands of acres of sandy soil but obtain very little from them. The Japanese, fewer as they are, can produce much more in a year than perhaps the millions of Chinese or Indians. Mere numbers do not count for much. Similarly, an up-to-date machine produces more than an out-of-date one. A competent organiser will make a small business yield a large total net profit. The efficiency of a factor is thus of great importance.

Efficiency may be natural or it may be acquired. Waste land can be turned into fertile fields by the application of manure. Labour can be trained ; capital can be properly organised through banking ; and *entrepreneurs* can be educated and assisted by statistical and other useful information. Good qualities can be strengthened and bad ones eliminated. Efficiency is thus largely man-made.

9. **Mobility of the Factors of Production.** Efficiency of production also depends to a certain extent on the mobility or the factors of production. Mobility means not merely physical or bodily movement from one place to another, but also changing over from one use to another.

There are few factors that can be put only to a particular use and to none else. Most of them can be moved from one use to another. Land can be made to grow several crops ; labour can move from one occupation, place, or industry to another ; even a machine is capable of producing different articles or different varieties of the same article. The *entrepreneur*, of course, can change over from one business to another. Hence we see that most factors of production are fairly mobile. Very few of them are absolutely specific.

In some cases mobility is easy. For example, an accountant in a sugar mill can easily become an accountant in a cotton mill. His work remains the same though he has moved from one industry to

another. In other cases, mobility is very difficult, as in a change of profession or even in a change of place.

Mobility may sometimes entail a loss when a *entrepreneur* has to switch over to another business.

The adaptability of the productive system depends on the degree of mobility of the factors of production. The last war has shown that the productive system is fairly adaptable. The countries involved in the war made a change-over from peace to war economy and *vice versa* fairly quickly.

10. **Relative Importance of the Factors of Production.** It is very difficult to say which factor of production is more important and which less. It is just like asking whether hands are more important or eyes to a human body. All of them seem to be equally necessary and important and each has a special function to perform.

Land makes available to us the gifts of nature ; it supplies space for economic operations ; it provides the raw materials. Everything that we use can be traced ultimately to land. Human life without land is inconceivable.

But what can land do alone ? Without man's aid it can produce but little, a few wild strawberries here and a few hard, stony plums there. Wild growth cannot sustain present human population. Man must work on land in order to increase production. Labour, therefore, is equally essential. Through man's efforts production has been immensely increased and diversified. As a matter of fact, everything that we see or use bears the stamp of human effort. Labour is, therefore, undoubtedly of great importance.

What about capital ? Capital fulfils a real need. Unaided by tools, man cannot produce much. If man has today mastered nature, if he can fly in the air, span the ocean, dive deep into the sea or penetrate into the bowels of earth, it is all due to the aid that he receives from machinery. A community mainly depending on land and its materials is condemned to appalling poverty for ever. Mechanization is the order of the day and for this capital is essential. It is not without reason that production of to-day is described as capitalistic production. Importance of capital, therefore, cannot be exaggerated.

The *entrepreneur*, or organiser, also plays a very essential part in production. It is he who is responsible for setting the productive machinery in motion. It is under his leadership that production goes ahead and breaks new ground.

We thus realise that all factors are necessary for modern production. But they have not been equally important always. The importance of a particular factor depends on the stage of economic development of the country. In the hunting and pastoral stage, land was undoubtedly all-important. In the agricultural stage, labour disputed with land for domination, but not wholly successfully. To-day capital and the *entrepreneur* seem to carry everything before them ; other factors have been eclipsed.

Besides, the relative importance of the factors of production varies from industry to industry. In industries, where raw material

costs are very heavy, we might say that land is more important and where costly machines are used capital is more important, and so on.

We shall make a detailed study of each of the four factors of production in the chapters that follow.

WHAT YOU HAVE LEARNT FROM THIS CHAPTER

Consumption depends on production and production depends on consumption.

Consumption and production are relative terms. They are different stages in the same process. Everyone is both a producer and a consumer.

What is Production ? It means creation or addition of value. *Does it mean creation of utility* ? No. It means creation of wealth or value. Because a thing may possess utility, it may not have any value or be wealth.

What is over-production ? Over-production happens only from the producers' point of view when they cannot sell their goods at profits and the stocks accumulate. There cannot be over-production from the consumers' point of view as they can always consume all that has been produced and stand in need of still more.

Classification of Productive Occupations :

(1) Industrial : (*a*) extractive, and (*b*) manufacturing.

(2) Commercial : (*a*) buying and selling, (*b*) transportation, (*c*) banking and insurance.

(3) Direct service to consumers, *e.g.*, work of domestic servants, lawyers, doctors, teachers, etc.

Factors Affecting Production :

(1) Natural factors like climate, floods and earthquakes.

(2) Political factors.

(3) Technical progress.

(4) Development of means of communication and transportation.

(5) Development of credit and banking.

(6) Character of the people.

Factors of Production. Four factors :—

(1) Land, *i.e.*, natural resources.

(2) Labeur—all mental and manual work done for money.

(3) Capital—all aids to production like tools, implements, etc.

(4) Organisation—bringing the other factors together for work and undertaking the risk of production.

Can the Four Factors be Reduced to Two ? Some economists argue that organisation is a form of labour and capital is not an original factor of production. Thus they assert that there are only two factors, land and labour, or nature and man.

Modern economists think that there are millions of factors. Anything that goes into production is a factor of production. They say that it is wrong to classify different things under the same heading as is done under the four-fold classification.

Efficiency of the Factors of Production. Production is very largely influenced by the efficiency of the factors of production. Efficiency is both natural and acquired.

Mobility of the Factors of Production. Mobility means either moving the factors from one place to another, or from one use to another.

Efficiency of production and adaptability of the economic system depend on the mobility of the factors of production.

Relative Importance of the Factors of Production. All factors are important and essential. Their relative importance depends on the nature of industry and the stage of economic development of a country.

CAN YOU ANSWER THE FOLLOWING QUESTIONS

1. Production is concerned with the addition of utilities. Give with illustrations an exhaustive definition of Production. [See Sec. 2.] *(Ajmer 1958)*

2. What is meant by production in Economics ? In the light of your answer discuss the claim of the following to be called producers :—

(a) Farmer, (b) Hunter, (c) Middleman, (d) Teacher, (e) Gambler, (f) Insurance Agent, (g) Bus Conductor, (h) Broker (dalal) in a Mandi, (i) Thief. *(Delhi 1948)*

3. Mention some of the causes which affect the volume of production in a country. Why is production low in India ?

[See Sec. 4. Production in India is small on account of the following reasons :

(1) Lack of sufficient water supply for agriculture.
(2) Small holdings,
(3) Poverty and ignorance of the farmer and the primitive methods of cultivation.
(4) Inefficient organisation of industry.
(5) Foreign competition.
(6) Non-utilization or partial utilization of the natural resources.
(7) Comparative inefficiency of labour.
(8) Lack of sufficient credit and banking facilities.
(9) Inadequate means of transport.
(10) Inefficient administration.]

4. What is production ? What are the factors of production ? [See Secs. 2 and 5.] *(P.U. 1936)*

5. "Land, Labour and Capital have been called three requisites of production. Explain this statement and offer any criticism upon it that you may think desirable. [See Sec. 5.] *(P.U. 1929)*

6. What do you mean by the efficiency of a factor of production ? On what does the efficiency of land and capital depend ? [See Sec. 8.] *(U.P. 1940)*

7. What do you understand by mobility of a factor of production ? Enumerate the obstacles that deter it. How would you make Indian labour more mobile ? [See Sec. 9.] *(Bombay 1954)*

8. Discuss the relative parts played by Man and Nature in production. Which o the two do you consider more fundamental and why ? [See Sec. 10.] *(P.U. 1937)*

CHAPTER VIII

FACTORS OF PRODUCTION

LAND

Land alone is not 'land' !

1. **Meaning.** Economics is a science of everyday life. It has to use words of everyday language. But it gives them a special meaning of its own, sometimes narrow and at other times wide. The term 'value', for example, has been given a narrow meaning and 'land' a very wide one.

In Economics, the word 'land' is used not merely in the sense of the soil or surface of the earth as is ordinarily understood. It stands for all nature, living and lifeless. It includes all natural resources that we can get free from air, water and land. It covers the land surface, whether level or mountainous. It includes ocean, lakes and rivers, mineral deposits, rainfall, water-power, fisheries, forests and numerous other things which nature provides and man uses. The term 'land' thus embraces all that nature has created on the earth, above the earth, and below the earth.

2. **Importance of Land.** Land as a factor of production is of immense importance. As has already been pointed out, everything that we use can be traced ultimately to land. Land may be rightly called the original source of all material wealth.

The economic prosperity of a country is closely linked with the richness of her natural resources. Generally speaking, it is true to say that a country is what nature has made it. It is possible that a country, rich in natural resources, may remain poor, (*e.g.*, India) owing to some unfavourable factors. But if nature has been unkind, and has not given rich resources to a country, it will not be easy to make it prosperous.

Obviously, the quality and quantity of agricultural wealth in a country depends on the nature of the soil, climate, and rainfall. Agricultural products, in their turn, form the very basis of trade and industry. Industrial prosperity will further depend on the presence of rich coal-mines, or waterfalls from which electricity can be generated. Localisation of industry depends on the proximity of power and raw materials, and they are largely determined by nature. The presence of cheap and efficient means of transport is largely conditioned by the topography of a country.

Thus all aspects of economic life—agriculture, trade and industry—are generally influenced by natural resources which the economists call 'land'. Land or nature has a determining influence in moulding the life, occupation and standard of living of a community.

3. **Peculiarities of Land.** Land as a factor of production is very peculiar. It possesses some important features which distinguish it from other factors. They are :—

(*i*) *Land is a free gift of nature.* It is not a 'produced' or man-made agent. It follows, therefore, that we have to accept it as it is. No doubt man tries to improve and modify nature. But he cannot completely master her. A poor soil and a bad climate are great handicaps in the way of industrial and trade prosperity.

(*ii*) *Land is permanent.* It is not easy to destroy it. All other factors are destructible, but land cannot be completely destroyed. Even the havoc wrought by an atom bomb can be cured and natural powers restored after some time.

(*iii*) *Land is limited in area.* Efforts have been made to reclaim land from the sea, and thus add to the total land surface. Yet these efforts have produced only negligible results as compared with the total area already in existence. Some land in Holland has been reclaimed from the sea, but it is after all a small percentage of the total land surface of the world.

(*iv*) *Land lacks mobility.* Land cannot be moved bodily from one place to another. It lacks geographical mobility. But it can be put to many alternative uses and is thus mobile from a different point of view.

(*v*) *Land is of infinite variety.* Land is not man-made. Nature has so made it that different pieces present infinite variations. None can say where the sandy soil ends and the clay begins. One type shades into the other. Such minute variations are not found in any other factor. Besides, the situation of different pieces of land also varies.

4. **Why Qualities of Land Differ ?** These are several reasons which account for differences in the qualities of land.

(*a*) *Differences in Fertility.* Some lands are too sandy and some too rocky ; some are dry while others receive ample rainfall. Some have a good climate while others cannot support human life. The constituents of the soil also vary. All such things make a difference in the quality of the land.

(*b*) *Differences in Location.* A piece of land situated near a market is more convenient than one away from it. Situation is an important differentiating factor. A favourable situation may make a less fertile piece of land equal in value to one which is more fertile but has a bad situation.

5. **Factors Affecting Productivity of Land.** We have discussed above why different pieces of land differ in quality. The same causes also affect the productivity of land. Productivity depends on the following factors :—

(*a*) *The Natural Factor.* Natural factors like the soil, climate, rainfall, topography and nature of the coast-line determine whether land produces much or little. A sandy soil and dry climate are sure to make it unproductive. On the other hand, an alluvial soil, a good climate, and timely rainfall are conducive to rich crops.

(*b*) *The Human Factor.* Man does not easily surrender to nature. If nature is unkind, he fights her and improves upon her. For instance, if rainfall is scanty, he can bring canal water. If soil is poor and deficient in certain properties, it can be improved by the addition of chemical manures. In fact, man plays an important part in remedying the deficiencies of nature.

(*c*) *The Situation Factor.* The situation of land is of great importance. Fertile lands, situated in a remote corner of the country, away from the market, may be left uncultivated. The cost of transporting their produce may be prohibitive. Such land cannot compare with those pieces of land which, though not so rich, are near the market.

6. **Extensive and Intensive Cultivation.** It is necessary to understand the distinction between extensive and intensive cultivation. Intensive cultivation implies constant cropping from the same area. If more and more capital and labour are applied to the same piece of land, the system of cultivation is known as *Intensive.* Greater applieation of labour and capital involves the use of artificial irrigation, deeper ploughing, sowing of improved seeds, use of artificial manures and of modern implements and machinery. In such cases, land yields more per acre. By cultivating it more intensively, the farmer tries to take the utmost out of his land. This method is followed in those countries where land area relatively to population is small.

Extensive Cultivation, on the other hand, implies wasteful use of land. Here the farmer can have as much land as he can manage. The methods of cultivation are primitive and unscientific. The yield per acre is comparatively low, but taken in relation to the capital and labour employed, it is large. Virgin lands yield good crops even though much work is not done on them. When they are exhausted, more lands are available. Here seeds are just sown and crops harvested when ripe. Such methods were followed in new countries like U.S.A. and Canada a hundred years back.

7. **Does Extensive Cultivation Mean Large-Scale Farming and Intensive Cultivation Small-Scale Farming ?** Not necessarily. It might seem that as the farmer has a large area at his disposal in extensive cultivation, cultivation must be on a large scale. In the same way, intensive cultivation seems to imply a small farm. The farmer is supposed to be trying to get the utmost out of a small piece of land by applying more and more labour and capital to the same piece of land.

But this may not be so. The difference between extensive and intensive cultivation is one of method rather than of the size of the farm. In advanced countries like Canada, the U.S.A. and Australia, and even in Russia where land is nationalised, the farms are very big, sometimes extending over miles. But the methods of cultivation are intensive. Large amounts of capital are invested in the land. The soil is thoroughly ploughed by tractors ; the seed is most carefully selected ; irrigation facilities are ample ; and manuring is heavy. Agriculture is carried on in a scientific manner. It is, in short, intensive.

In countries like India, however, the holdings are very small, but cropping is very poor. Our method of cultivation is extensive. This is one of the important causes of our economic backwardness. After the attainment of independence, and specially since we started the process of Five-Year Plans in 1950-51, intensive cultivation has been given utmost importance. It is going to assume greater and greater importance still because we want to increase our agricultural production to achieve self-sufficiency in both food for our people and raw materials for our industries.

WHAT YOU HAVE LEARNT FROM THIS CHAPTER

The Meaning of 'Land'. 'Land' does not mean merely soil. It covers all natural resources—on the earth, above the earth, and below the earth.

mportauce of Land as a Factor of Production :

(1) It is the original source of all material wealth.
(2) Economic prosperity of a country depends on natural resources.
(3) The quality and quantity of agricultural production depend on it.
(4) Industrial development is conditioned by it.
(5) Localisation of industries is determined by it.
(6) Development of means of transport is influenced by it.

Peculiarities of Land :

(1) It is a free gift of nature.
(2) It is permanent.
(3) It is limited.
(4) It lacks mobility.
(5) It is of infinite variations.

Why Land Differs in Quality ? Fertility and situation account for the differences in the quality of land.

Factors Affecting Productivity of Land :

(1) Natural or inherent qualities.
(2) Human factor—irrigation, manuring, etc,
(3) Situation in relation to markets.

Extensive and Intensive Cultivation. When land is wastefully used, it is called extensive cultivation. It seems that in this case a farmer has more land than he can manage. Intensive cultivation implies scientific cultivation. There is systematic rotation of crops, careful selection of seeds, thorough tilling, heavy manuring, ample irrigation facilities and use of modern implements.

Extensive cultivation does not necessarily imply large-scale farming and intensive cultivation small-scale farming. The difference between the two is the difference of the *method* of cultivation rather than of the *scale* of farming.

CAN YOU ANSWER THE FOLLOWING QUESTIONS ?

1. *Define land and discuss its importance as a factor of production. What are the factors that affect the productivity of land ?* *(Pb. Pre-Univ. 1961)*
[Sec. Secs. 1, 2 and 5.]

2. *A "country is what nature has made it." Discuss.*
[See Sec. 2. The prosperity of a country, however, does not depend on natural resources alone. Other factors must also be favourable. Men should be diligent, intelligent and resourceful and have sufficient amount of capital. Nature has bestowed on India her choicest gifts and yet India is poor. This is due to the fact that social and political factors are not favourable.]

3. *Explain the meaning of the word 'Land' in Economics and discuss its peculiarities as a factor of production,* [See Sec. 3.] *(J. & K. 1957)*

4. *Define 'Land'. Explain the factors which affect the productivity of land.* [See Secs. 1 and 5.] *(Delhi H.S. 1958)*

5. *Distinguish between Intensive and Extensive Cultivation. Does extensive cultivation necessarily mean large-scale farming ? Give reasons.*
[See Secs. 6 and 7.] *(U.P. Board 1956 ; P.U. Pre-Univ. 1962)*

6. *Describe carefully the term 'Extensive' and 'Intensive' cultivation. To what extent is the latter process of cultivation being carried on in India ? What are the chief difficulties to be met within its adoption in India ?* *(U.P. 1929)*

[See Sec. 6. In India there is very little intensive cultivation. This is due to lack of capital and to ignorance of modern agricultura technique.]

7. *Fill in the blanks by using one of the words in brackets—*

Land is.....(limited, unlimited) by nature.
(P.U. Pre-Univ. 1961 Suppl.)

The supply of land is perfectly.....(limited, unlimited).

CHAPTER IX

FACTORS OF PRODUCTION (*Contd.*)
LABOUR

Labour of love is not 'labour' !

1. **Meaning.** "My work begins when others play," says the Drill-master. What he says is true. What is play for others is a source of income for him. If we take exercise for the sake of health, a mother rears up her child, a father teaches his own son, or if a man plants flowers for his pleasure—these are not considered 'labour' in Economics. Why ? They are not undertaken to earn a money reward. Doing one's own work or labour of love, however hard it may be, is not labour in the economic sense. *Unless work is done for some consideration, i.e., payment in cash or kind, it cannot be called labour.*

In ordinary language, by 'labour' we mean the work done by coolies—hard manual labour, generally unskilled. But in Economics, the term 'labour' has a wider meaning. *It does not merely mean manual labour. It includes mental work too.* It thus embraces the work of labourers, engineers, clerks, typists, managers, policemen and other government officials, teachers, lawyers, domestic servants, etc. All type of work comes under labour in Economics provided it is done for money.

Labour may thus be defined as **"any exertion of mind or body undergone partly or wholly with a view to earning some good other than the pleasure derived directly from the work."**—(*Marshall*)

2. **Productive and Unproductive Labour.** For a long time there was disagreement among the economists as to what type of labour was productive and what was unproductive.

The Physiocrats, a school of economists who lived in France in the 18th century, considered that only agriculture was productive labour, for only in agriculture real production took place. According to Adam Smith, only that labour, which resulted in the production of something tangible, was productive. Thus he excluded the services of lawyers, professors and singers from the category of productive labour. Later, however, the work of manufacturing goods was also recognised as productive. Gradually it was recognised that the work of the trader in stocking things and in transporting them also added to the value of a commodity. Banking and insurance work also came to be included under the heading 'productive'. Now all types of work, including the work of men of professions like medicine, law and teaching, as well as the work of domestic students is regarded as productive. In other words, *all labour in the economic sense is productive.*

The term 'unproductive labour' is now applied to wasted labour or misdirected labour, or labour which has failed to achieve its purpose. Even in such cases some economists say that the labour is productive, for when it was applied the intention was productive. It was only known afterwards that it produced nothing. Even misdirected labour is productive from the point of view of the labourer as he gets payment for it; it is unproductive from the point of view of society only.

3. **Peculiarities of Labour.** In the past, labour was considered an ordinary commodity to be bought and sold like others in the market. It was not recognized that labour was not only a means to an end but was an end itself. Now this difference, which distinguishes labour from other goods, is kept well in the forefront. Let us see the peculiarities which make labour different from other commodities :

(1) *Labour is inseparable from the labourer.* A labourer's work has to be delivered in person. A farmer cannot stay at home and let his 'labour' work in the fields. A doctor has to attend to his patients in person. If, however, labour takes some form, as a professor's thoughts take the form of a book, it does not remain labour any more. The book which is the result of labour is not labour itself; it is a material good and can go anywhere.

(2) *The labourer sells his services and not himself.* Whatever has been spent on a labourer's training cannot be withdrawn by selling his labour. That might have been possible when slave trade used to flourish. But those days are long past. Now investment in the labour becomes a part and parcel of him.

(3) *Labour is more perishable than any other commodity.* If time flies, labour flies with it. A day lost without work means a day's work gone for ever. That is why workers are compelled to accept even low wages rather than earn nothing.

(4) *Labourers have not the same power of bargaining as their employers.* This is because labour cannot be stored up, and labourers are poor and ignorant. That is why, although a strike is a weapon used against the master, yet it hurts labour too. The development of strong trade unions in most industrial countries has helped the individual labourer, and in some cases turned the tables on the master. When labourers learn to deal with employers as a body and not as individuals, they are no longer so weak. Collective bargaining removes the weakness of labour in this respect.

(5) *A labourer differs from a machine in that he has feelings and likings.* He works best when he is happy and puts his heart in the work. Rest, leisure, healthy surroundings, recreation and, above all, a fair treatment from officers add to his efficiency. He feels encouraged to do his best.

(6) *Labour is much less mobile* than capital and other goods. This follows from what has been said above, *viz.*, that a labourer is not a machine. He does not want to leave his *hearth* and *home* and his kith and kin.

(7) *The supply of labour is almost independent of its demand* and cannot be easily and quickly increased or decreased. Labourers

cannot be 'made to order' as other goods. If they are surplus, their numbers can be reduced only by a painful process of starvation or emigration. If there is a sudden increase in demand for labour as during a war, wages will rise but supply of labour cannot be appreciably increased.

(8) *It is not easy to calculate the cost of production of labourers.* Here again labour is a peculiar 'commodity'. How can the cost of bringing up children be calculated ?

(9) *Labourers differ in efficiency.* Unlike tools and machines, they are not exactly interchangeable. Hence wages may differ from man to man.

We now turn to the problem of the growth of labour.

4. **Malthusian Theory of Population**. The labour strength of a country depends on both the quantity and the quality of labour. The quantity relates to the number of people in the country. The quality refers to their efficiency or their capacity to work. We shall now take up these two aspects of labour—the quantitative and the qualitative aspects. First the quantitative aspect, *i.e.*, numbers.

The quantitative aspect of labour relates to the growth of population. The best known theory of population is the Malthusian Theory. Thomas Robert Malthus propounded his theory in his *Essay on Population* in 1798. He modified it later, but retained the essential features.

Malthus wrote that population increased in geometrical progression, *e.g.*, 2^1, 2^2, 2^3, 2^4, 2^5,...(*i.e.*, 2, 4, 8, 16, 32). But food supply increased in arithmetical progression, *e.g.*, 2, 4, 6, 8, 10, 12,...(the series having the same difference). As a consequence food must run short in relation to population, or population outstrips the food supply.

Later on, Malthus dropped the mathematical part of the theory as it could not be proved. He had used the phrases 'geometrical progression' and 'arithmetical progression' simply to emphasise his point.

Briefly the Malthusian theory may be thus summed up :—

Power of procreation is inherent in human beings, as in plants and animals. Given free play, this power must lead to rapid increase in numbers. Multiplication is the law of nature. Population, therefore, must increase by leaps and bounds. This is natural.

But the production of food, being subject to the law of diminishing returns, does not increase so rapidly. Thus food supply lags behind.

When population increases rapidly but food supply only slowly, the inference is clear that population outstrips the food supply. When food supply runs short, people must starve and be plunged into misery.

In order to save themselves from impending misery, Malthus said, the people must use preventive checks like self-restraint and late marriage. If preventive checks are not exercised, positive checks like disease, war and famine would come into operation. In this

way, the numbers would be cut down to the limits justified by the supply of food available.

To sum up : Population has a tendency to increase very fast, but the food supply cannot increase so fast. Hence food supply is left far behind. The country suffers from over-population. Unless preventive checks are applied, positive checks will operate.

5. **Criticism of the Malthusian Theory.** Malthus's theory raised a storm of controversy. The critics attacked it on the following grounds :—

(*i*) It is not mathematically accurate. Malthus replied that the mathematical part was not an essential part of his theory. He had used it only to give his point a proper emphasis.

(*ii*) The theory is based on the law of diminishing returns as it operates in agriculture. But it is pointed out that this law can be counteracted by the application of scientific methods of cultivation. The progress in agriculture so far has falsified the fears of Malthus. But are we sure that progress of science will keep pace with the increase in population ? Will not science be defeated in the end ? No amount of agricultural progress can feed a people if their growth is not checked.

(*iii*) The theory has not been borne out by actual facts. Malthus could not foresee the development in the future. People in advanced countries use contraceptives to such an extent that population has almost come to a standstill. France is a classic example of this. Besides, population has not increased at the rate suggested by Malthus. Both birth and death-rates have gone down in advanced countries. The survival rate (difference between birth-rate and death-rate) is much less now. During the last century, the decennial increase of population in England went down from 15% to 5%.

People now attach greater importance to their standard of living. They either postpone marriage or do not marry at all, unless they are sure of maintaining a standard of living to which they have become accustomed. When married they try to keep the size of the family within reasonable limits.

There is now a higher level of economic prosperity. Food is more abundant and varied than it ever was. Malthus's gloomy forecasts have not proved true. People have better health and physique in Western countries than ever before.

(*iv*) Wealth and prosperity check population indirectly. It is pointed out that fewer children are born in rich families than in the poor ones. This statement lacks a scientific proof, though statistics show that there is such a tendency.

(*v*) Malthus was wrong in emphasising that food self-sufficiency must be an essential feature of the economy of every country. A country may not be able to produce sufficient food, yet, if it can create wealth by commerce and manufactures, it can import food from other countries. In this way, it can support a large population. England provides an excellent example of this.

There is no doubt that Malthus was unduly pessimistic. People in the West have escaped the disaster which he foretold. His fears have been falsified by improvements in the methods of agriculture, trade and industry, by family planning and by social reform in advanced countries.

But what about backward countries like India and China ? Their teeming millions are sunk deep in appalling poverty. No preventive checks are exercised. Hence positive checks like famine, war and disease are operating freely. Can we doubt, then, that what Malthus said applies to such countries ? In India, the production of food has not kept pace with increase in population. The country is suffering from the worst effects of over-population, famine, disease, abject poverty, internal conflict, etc. The Malthusian Theory undoubtedly applies to India.

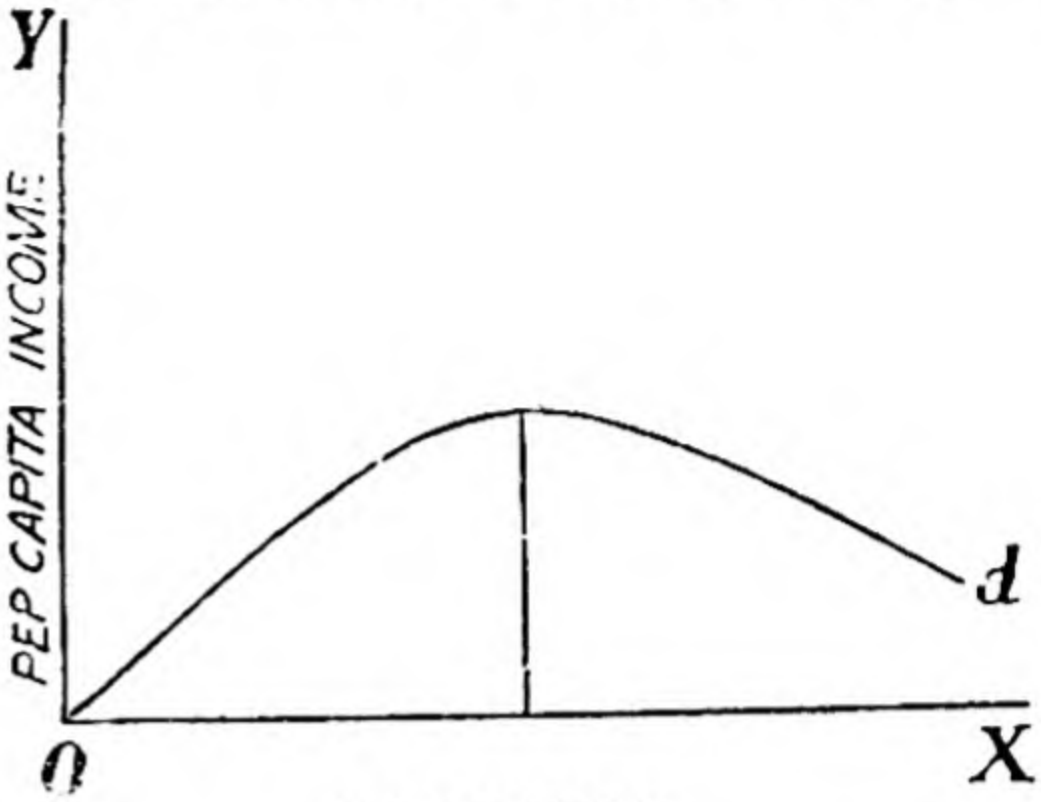
Further, his theory may not be applicable to a particular country. It tends to apply to the world as a whole. One country may be able to save itself by importing food or by adopting other devices. But the population of the world as a whole must outstrip its food supply. If that were not so, Western countries and British Dominions would not keep out the Asiatics. What is the significance of the treatment meted out to Indians in South Africa ? The white man is anxious to raise barriers against the overflowing people of Asia so that he may be able to maintain his standard of living.

6. **Modern Theory of Population**. The modern theory of population is known as the Optimum Theory. The Malthusian Theory fixed its attention on the maximum population that a country could maintain. If that maximum was exceeded, misery was in store for that country. According to the optimum theory, there is no such maximum. If the country develops its resources, it can increase its population correspondingly.

The optimum theory says that if we take into consideration the total resources *actually* developed in a country at the moment, there is a certain size of population which best suits it. It is the ideal number. The country can maintain this number in the best condition. This is known as optimum population. If the population goes beyond this optimum number, there is *over-population*, for the available resources are then thinly distributed over too many persons. In case the actual population is less than the optimum, there is *under-population*. This means that the number of people is not enough to work the available resources to the best advantage. In both these cases, *viz.*, of over-population, and under-population, the *per capita* income is less than it can be. At the optimum the *per capita* income is the highest possible. "The optimum population is reached, when with the available amounts of other factors (which themselves are of course subject to variations as well), the maximum product per head is attained."—(*Silverman*).

We can represent the 'optimum population' with the help of a diagram. A country's resources may have various levels of

development. These may be poorly developed. Symbolically, the level of development may be *a*, *b*, *c*, *d*.....(*i.e.*, highly developed, less developed, and so on in the descending order). Let us suppose we are at level *d*. Represent population along X-axis, and the *per capita* income on the Y-axis. OM population gives us the highest *per capita* income PM, with *d* level of development. Population less than OM is under-population ; and more than OM is over-population. In both these cases, *per capita* income will be less than PM.



The optimum population is *relative to resources*. It is not rigidly fixed in number. Today we say India is over-populated. But if we develop our resources to the fullest extent and increase our national wealth, India will cease to be over-populated. This is the same thing as going from one lower level of development to an upper level. At the upper level, we can naturally support more people at a higher *per capita* income. Thus even a small population may be over-population if the resources available are indequate ; and even a large population may not be considered over-population if adequate resources are available. In short, the optimum theory relates population to the resources and does not speak of population in absolute terms independently of a country's resources as Malthus did.

7. **Efficiency of Labour.** We have said that while estimating the labour strength of a country both the number of the people and their efficiency have to be considered. We have already discussed the quantitative aspect of the theory of population. Now we shall consider the problem of labour efficiency.

The English, American and the Japanese labour is considered to be much more efficient than the Indian labour. What is the reason ?

The efficiency of a worker depends on two sets of factors : Those which affect (*a*) his *Power to Work* ; (*b*) his *Will to Work*. The labour's capacity of POWER TO WORK depends on the following factors :—

(*i*) *Inherent qualities of the racial stock.* The Jats of the Jullundur Division in the Punjab are more efficient farmers than *Meos* of Gurgaon district or Rajputs of Kangra district. A man inherits some qualities from the racial stock to which he belongs. Some races are known to be hardier than others.

These qualities are beyond an individual's control and are largely the outcome of climate and natural environments. The inhabitants of temperate and cold regions are more efficient than those of the tropics and sub-tropics. Hot climate has a weakening influence and makes sustained labour difficult.

(*ii*) *Acquired Qualities.* There are, however, certain attributes which a worker acquires by *education, general and technical.* Among these attributes may be mentioned honesty, intelligence, perseverance, judgment, health and strength of the body, resourcefulness, sense of responsibility, etc. Efficiency of labour depends also on these qualities. An honest, intelligent and hardworking person will undoubtedly be more efficient in his work than one who lacks these qualities.

(*iii*) *Earnings.* If a worker is getting a good wage, he will be able to provide himself with good food and other necessaries of life. It will add to his health, strength and power of endurance, and he will undoubtedly become a better worker. "The economy of high wages" is well known. "Low wages are dear wages." Fair and prompt payment is a great incentive to the worker. It encourages him to do his best.

(*iv*) *Factory Environment and Equipment.* If the factory is neat and well-ventilated and the surroundings are sanitary and attractive, the workers will be able to put in better work. Similarly, if the machinery is modern and up-to-date, if the raw materials are of good quality, if the manager is competent and can effectively marshal his labour force, the output of labour will increase.

(*v*) *Hours of Work.* It has been proved that long hours mean low efficiency. The worker is overcome by fatigue. He works leisurely and half-heartedly which means lower efficiency. If the working day is of a reasonable length, and there are proper rest pauses, the worker will be able to put in his best.

(*vi*) *Labour Organisation.* Proper organisation of labour inside the factory will improve labour efficiency. A good trade union can also improve labour efficiency through its fraternal functions.

The worker's WILL TO WORK is strengthened by his ambition to rise, his desire to make the most of an opportunity, the inducement of efficiency bonuses or profit-sharing schemes and his sense of duty. All these factors add to the worker's zeal. The more earnest he is, the greater is his productivity.

Efficiency of Indian Labour. It is said that Indian labour is less productive. This is true. Indian labour has been compared with Japanese, British or American labour and found wanting. There are several factors responsible for comparative inefficiency of Indian labour.

But the fault is not of the labour alone. Production is a cooperative effort. Unless all the factors of production are satisfactory, production will not be up to the mark. The Indian labour is no doubt less efficient ; but it is not due to any inherent deficiencies of his own. The sub-tropical climate weakens him physically. Extremes of heat and cold render factory work a great ordeal. His wage is extremely low and is hardly enough to keep his body and soul together. Besides labour is not properly organised. It is caste-ridden and migratory. They are illiterate and lack technical training. The factory conditions are very depressing and foreign to his natural tastes and temperament. He is supplied with second-rate machinery and equipment. The supply of raw materials is also

unsatisfactory. Even the managers are not very competent. He is condemned to long hours of work. Conditions being as they are, it is really surprising that he is able to do even as much work as he is doing. Efficiency of Indian labour can be improved by removing these defects.

8. **Advantages of Efficient Labour.** Several advantages arise from efficiency of labour. Efficient labour benefits the individual worker himself, his employer, and the nation as a whole.

The worker gains from his own efficiency. He wins the regard of his fellow-workers and the approval of his boss. He is also able to earn more and enjoy a higher standard of living.

The factory owner stands to gain much from an efficient labourer. Such a labourer needs less supervision, does not waste material, and he carefully handles his machine. The repair charges are thus reduced and the cost of production lowered. Efficient labour is more economical.

The nation at large ultimately benefits from an efficient population. The national wealth increases. The level of skill, intelligence and physique improves. Above all, it adds to the competitive strength of the country's industries. It is well-known that Japan's industrial supremacy in the markets of the world was largely due to the efficiency of the Japanese labour. Efficient labour is a great national asset. The economic backwardness of India may be partly attributed to the lower efficiency of Indian labour.

9. **Mobility of Labour.** Of all kinds of luggage man is said to be the most difficult to transport. With the exception of land, perhaps labour is the least mobile factor. Man finds one excuse or another for not leaving his native place. He clings to his hearth and home and is reluctant to leave his kith and kin. He is content with what he has and has no urge to venture abroad. Indian labour is particularly less mobile. This is due to his ignorance, conservatism, caste considerations and comparative lack of quick and cheap means of communication and transport.

Mobility of labour takes the following forms :—

Geographical Mobility. This means moving from one town to another, from one State to another, or from one country to another. Of all types of mobility this is the most difficult. Man dreads a change as a child dreads the dark. He suffers from inertia and likes to stay on where he is. He is prepared to put up with known hardships rather than face unknown ones. Vague fear attaches to new and strange places. One wants to live amongst one's kith and kin. Difference in religion, caste and language—all deter him from going to distant places. The Punjabi worker, especially the Sikh, is comparatively more mobile. He is found in almost all parts of the world —America, Canada, Australia, New Zealand, Africa, all know him.

Occupational Mobility. This is of two types : *horizontal and vertical. Horizontal Mobility* means that the worker moves from one occupation to another, but almost in the same grade, *e.g.*, a *typist* gives up service and opens a business of his own on the same

lines. Moving on the same industrial plane is comparatively easy, because it does not entail any change in work.

Vertical Mobility. This, on the other hand, means moving from a lower occupation to a higher occupation, *e.g.*, a *mistri* or a mechanic becomes a mechanical engineer, or a school teacher becomes a college professor. This type of mobility is not easy. It calls for an improvement in power to work and understand, and needs opportunity and the means of using it.

10. **Importance of the Mobility of Labour.** Mobility is of great advantage to the worker himself. Undoubtedly most of those who leave their village homes for distant industrial centres or foreign lands are able to improve their prospects. They raise themselves up economically. By trying luck elsewhere one generally meets good luck. One rots by staying at home. Nothing can be achieved without showing an adventurous spirit.

A mobile labour force is also advantageous from the point of view of the industrial structure. We find new industries establishing themselves and old ones expanding. Similarly, industries contract and decay. It is necessary that labour should move out of the latter into the former. It is through mobility of labour alone that supply of labour is adjusted to the demand for it.

It may be noted that a growing population makes for mobility of labour. The new generation can move into new industries. A country with a stationary population, however, will be seriously handicapped in this respect.

Mobility of labour checks unemployment. Labour moves from places where it is not wanted to those where it is wanted. In fact, this is one of the functions of labour exchanges.

WHAT YOU HAVE LEARNT FROM THIS CHAPTER

Meaning of Labour. It means "any exertion of mind or body undergone partly or wholly with a view to some good other than the pleasure derived directly from the work."

Classification of Labour :

(1) *Production of Labour.* All labour is productive in the economic sense when undertaken for some consideration.

(2) *Unproductive Labour* is that labour which has been misdirected or wasted or which has failed in its purpose.

The labour strength of a country depends on :

(*a*) population, (*b*) labour efficiency, *i.e.*, both quantity and quality of labour.

Theories of Population :

Malthusian Theory. Population increases faster than food supply. If it is not checked by the use of preventive checks, positive checks like war, famine and disease will operate to cut down the population to its proper size.

Its criticism :

(1) The mathematical part is not correct.

(2) The theory is based on the law of diminishing returns whose working has been checked by the application of science to agriculture.

(3) It is not borne out by history. In Western countries, population has not increased at so alarming a rate. Standards of prosperity, health and physique are much higher. The gloomy predictions of Malthus have not proved true.

(4) Increase in wealth and a rise in the standard of living indirectly keep down population.

(5) Malthus emphasized food production unduly. What really matters is the production of wealth rather than merely that a food.

Conclusion. Although his theory does not apply to the West today, yet it is fully borne out by the conditions prevalent in some Eastern countries like India and China. The progress of science and increase in food supply will not always keep pace with the increase of population. The theory may not apply to individual countries but it does apply to the world as a whole.

Optimum Theory of Population, also called the *Modern Theory*. Optimum means the best. Optimum number is the right number considering the developed resources of the country. Optimum thus is relative to resources. Here *per capita* income is the highest.

Efficiency of Labour. It depends on *Power to Work* and *Will to Work*. The following factors affect labour efficiency :—

(1) Qualities of racial stock.
(2) Qualities acquired by technical or general education.
(3) Earnings.
(4) Conditions of employment.
(5) Hours of work.
(6) Personal qualities like resourcefulness, honesty, earnestness, senso of duty, ambition, etc.

Advantages of Efficient Labour :

(1) Higher earnings for the worker.
(2) Lower cost for the producer.
(3) More goods for the community.

Mobility of Labour : Different types :

(*a*) *Geographical*—from one place to another.
(*b*) *Occupational Mobility* :
  (*i*) *Horizontal, i.e.*, between industries at the same level.
  (*ii*) *Vertical*—from the lower to a higher occupation.

Importance of Mobility :

(*a*) Mobility brings economic advantages to the workers.
(*b*) It adjusts the supply of labour to the demand for it.
(*c*) Labour is divided from the decaying to the growing industries.
(*d*) It checks unemployment.

CAN YOU ANSWER THE FOLLOWING QUESTIONS NOW

1. *Define Labour. Will the following come under Labour :—*

(*a*) *Practice at the nets by a tennis player for winning the university match.*
(*b*) *A professor working in his garden on Sunday.*
(*c*) *The factory owner making a round of his factory.*
(*d*) *The poet Dante, painting a picture.*
(*e*) *The work of a factory manager.*
(*f*) *A doctor examining a patient.*
(*g*) *Pt. Jawaharlal Nehru doing* **Shirsh asana.** *(P.U. 1926)*

[For meaning of labour see Sec. 1.]

(*a*) No, it is for the pleasure of winning rather than for any monetary consideration that he is practising so hard.
(*b*) No, it is his hobby and not a means of livelihood.
(*c*) Yes, it is his job : he is doing it for profit.
(*d*) No, it was not his job. He was a poet and not a painter.
(*e*) Yes, he is paid for it.

(*f*) Yes, he is paid for it.

(*g*) No it is his hobby.

2. *Will you regard the following as 'labour' as understood in Economics ?*

(*i*) *Washing of clothes by a housewife.*

(*ii*) *Washing of his own clothes by a washerman.* (*P.U. H.S. 1961*)

3. *Distinguish between Productive and Unproductive Labour. Give two illustrations of each type.* [See Sec. 2.] (*C.U. 1931*)

4. *What are the characteristics of labour which make it different from a commodity ? What is the importance of this distinction ?*

[See Sec. 3.] (*Ajmer Inter Arts 1960*)

5. *Explain briefly the Malthusian Theory of Population. Is this theory true nowadays ?*

[See Secs. 4. and 5.] (*Delhi H.S. 1959 ; Ajmer Inter Arts 1960*)

Or

Critically examine the Malthusian Theory of Population.

[See Secs. 4 and 5.] (*Delhi H.S. 1960 ; Delhi Prep. 1960*)

6. *What is meant by* **over, under** *and* **optimum** *population ? In what way is the optimum theory of population an improvement on the Malthusian concept ?* [See Sec. 6] (*Bombay 1953*)

Or

Do you consider the Theory of Optimum Population to be superior to the Malthusian Theory of Population ? If so, why ?

(*Sardar Vallabh Bhai Vidyapeeth 1959*)

7. *What are the factors on which the efficiency of labour depends ? How does improved efficiency of labour benefit the consumer, capitalist, and the nation as a whole ?* [See Secs. 7 and 8] (*J. & K. 1958 ; P.U. 1957*)

8. *On what does the efficiency of labour depend ? What can an employer do towards raising the efficiency of labour ?*

(*P.U. 1956 Suppl. ; Saugor 1952 ; Utkal Inter and Rajasthan Inter 1960*)

[See Sec. 7. The employer can raise efficiency by paying a better wage, installing modern and up-to-date machinery, by providing comfortable conditions in the factory, by proper organisation of labour, by providing general and technical education, by labour welfare activities, etc.]

9. *What do you understand by efficiency of labour ? Explain the factors which govern it.* [See Secs. 7 and 8.] (*Pb. Univ. H.S. 1962*)

10. *What factors determine the efficiency of a labour in a region ? Are there any inherent reasons for the relatively lower efficiency of Indian labour as compared to labour in developed countries ? What can the Government do to promote efficiency of labour in an under-developed country like India ?* (*P.U. 1960*)

11. *Briefly explain the factors on which the efficiency of labour depends. Why is Indian labour less productive than labour in industrialised countries like U.S.A. ?* (*Delhi Prep. 1962*)

12. *What is the meaning of mobility of labour ? What factors hinder the mobility of labour in India ?* (*Utkal Inter Arts 1959 ; P.U. Pre-Univ. 1962*)

13. *Distinguish between :—*

(*a*) *Positive checks and preventive checks.*

(*b*) *Horizontal mobility of labour and vertical mobility of labour.*

(*c*) *Geographical mobility and occupational mobility of labour.*

14. *Fill in the blanks by using one of the words given in brackets :*

(*i*) *The work of a mother knitting a pair of socks for her child.....* (*P.U. Pre-Univ. 1961*)
(is considered, is not considered) *as labour.*

(*ii*) *The work of a poet painting a picture.....* (will, will not) *come under labour.* (*P.U. Pre-Univ. 1961 Suppl.*)

(*iii*) *Efficiency of labour depends on.....* (money, real) *wages.* (*Pb. Univ. H.S. 1961*)

CHAPTER X

FACTORS OF PRODUCTION (*Contd.*)

DIVISION OF LABOUR

Splitting to combine

1. **Introduction**. Production is more than ever a co-operative effort today. Thousands of people co-operate in the production of the paper on which you are writing, or the book you are reading. There are thousands of workers at the raw material stage, more thousands busy in manufacturing and distribution. They all work towards a common end. But this co-operation is not haphazard. It is an organised co-operation without unnecessary duplication. An outstanding feature of this co-operation is division of labour.

2. **Meaning of Division of Labour**. When many people combine to produce an article, the work is so arranged that the making of the article is split up into a number of processes. Each process is then assigned to a separate set of people. This specialization is known in Economics as *Division of Labour*. For example, let us see how a chair is made in a furniture factory. One group is engaged in making legs, another in making backs, another seats and still another joining them and finally there is a group of workers polishing the chairs. This is division of a labour. Adam Smith illustrates this with the example of pin-making which in his time was split up into as many as eighteen distinct processes.

3. **Simple and Complex Division of Labour**. When the combined efforts of many men accomplish a piece of work, it cannot be said what part each man did. It is a case of *simple division of labour*. Ten men lift a huge log of wood. You cannot tell how much weight did each one lift.

Complex division of labour, on the other hand, is one in which each worker or each group of workers is doing a distinctly separate job, *e.g.*, one group does the spinning and the other weaving in the making of cloth.

4. **Forms of Division of Labour.** The extent of division of labour depends on the stage of economic evolution. As society has advanced, division of labour has become more and more complex. We may distinguish the following main stages or forms of division of labour :—

(*i*) At first there was *specialisation by trades and occupations*. Manu divided Hindu society into four groups—Brahmins, Kshatriyas, Vaishyas and Sudras. But trades and occupations multiplied, and now we have carpenters, weavers, shopkeepers, farmers, lawyers, teachers, doctors, etc. At this stage, each man makes the whole thing. The weaver goes through all the processes by himself and produces cloth. The carpenter makes a complete chair, and so on.

(*ii*) Next stage is *specialisation by tasks.* The making of an article is split up into a few simple operations and each operation is performed by a separate set of people. It is also known as *specialisation by process.* For example, making of cloth is divided into processes of spinning, sizing, weaving, bleaching and finishing. This is division of labour proper.

(*iii*) *Specialisation by incomplete process.* In this form of division of labour, each process is split up into a number of sub-processes. Pin-making in a modern factory is divided not only into eighteen processes as Adam Smith said but into many more. There are numerous stages in spinning, in weaving, and so on. Division of labour in modern times has become much more minute and complex. It has increased the interdependence of one person on another in our society.

(*iv*) *Territorial or geographical division of labour.* This means that certain localities, districts, towns or areas specialise in producing a particular commodity. They become specially famous for this, so that they receive orders from distant places, *e.g.*, Ludhiana (Punjab) has specialised in the making of hosiery goods, Aligarh (U.P.) in locks, Bengal in jute, and so on.

5. **Economic Effects of Division of Labour.** Division of labour has had far-reaching effects in the economic world. It has beproduced results both good and bad. On the one hand, it has become possible to produce much large quantity of goods at much less cost ; and, on the other, there is mass production of standardised goods which ignores individual tastes. Production has become more capitalistic or round-about. The number of occupations has increased. The labourer has now to learn only a part of the job, which makes things easy for him. But his work has become monotonous, and he has lost the skill of making the entire article. He is no longer the master of its tools nor of the product. His dependence on the capitalist is complete. Division of labour has increased interdependence. It has given rise to the problem of Labour *vs.* Capital which the society has not been able to solve satisfactorily.

Good and bad effects of division of labour can be seen in the merits and demrits of the system and these are discussed below.

6. **Merits of Division of Labour.** Economists are very enthusiastic about the advantages that have resulted from division of labour. *The system benefits the worker in the following ways* :—

(1) *The right man in the right place.* Under division of labour, the chances are that each man will get the job for which he is best fitted. There will be no round pegs in square holes. The work will be better done. On the other hand, just imagine an interchange of work between a farmer and his wife—he doing the cooking, and she ploughing the field. You can guess the result.

(2) *The worker becomes an expert.* Practice makes him perfect. When a man does a certain work over and over again, he is bound to improve. He will be able to turn out better goods. There is an increase in his skill and dexterity. The worker benefits. He produces better results in less time.

(3) *Heavy work taken over by machinery.* Division of labour makes it possible for heavy work to be passed to machinery. Only light work is done by men so that there is less strain on their muscles.

(4) *Less training required.* As the worker has to do only a part of the job, he need learn only that much. Long and costly training is rendered unnecessary. The shortening of the period of training for a worker is a great gain.

Besides these benefits to labour, there are advantages to the industrial system and society as a whole from the introduction of division of labour.

(5) *Inventions.* When a man is doing the same work over and over again, some new ideas are bound to occur. This leads to many inventions. These inventions make for economic progress.

(6) *Introduction of machinery.* By division of labour, the work is reduced to a few simple movements. Sooner or later, some machinery is brought in to take over these mechanical movements.

(7) *Cheaper things.* On account of mass production made possible by division of labour and the use of machinery, *cheaper things are turned out.* Even poor persons can buy them. This is beneficial to society. Standard of living improves.

(8) *Economy in the use of tools.* It is not necessary to provide each worker with a complete set of tools. He needs a few tools only for the job he has to do. These tools are kept continuously employed. This is very economical.

(9) *Saving in time.* The worker has no longer to move from one process to another. He is employed on the same process. He, therefore, goes on working without loss of time. Continuity in work means more production.

(10) *Rise of entrepreneurs.* As work is divided, somebody is needed to co-ordinate the work. This leads to the rise of entrepreneurs who specialise in the work of organisation. This has contributed to the productive efficiency of the community.

7. **Demerits of Division of Labour.** Division of labour has proved *harmful to the individual workers in certain ways* :

(1) *Monotony.* Doing the same work over and over again without any change *produces mental fatigue.* Work becomes irksome and monotonous. There is no pleasure in the job. The worker cannot be expected to take any interest. The quality of work must suffer.

(2) *Kills the creative instinct.* Since many men contribute to the making of an article, none can say that *he* has made it. His creative instinct is not satisfied. The work gives him no pride and no pleasure, since no worker can claim the product as his own creation.

(3) *Loss of skill. The worker deteriorates in technical skill.* Instead of making the whole article, the worker is required just to repeat a few simple movements. The skill with which the artisan once made the artistic products gradually dies out. He simply becomes a machine tenderer. The weaver of Dacca muslin fame is gone.

(4) *Checks mobility.* The worker is doing only a part of the job. He knows only that much, and no more. It may not be easy for him to find exactly the same job elsewhere, if he desires a change. In this way, the worker loses mobility.

(5) *Risk of unemployment.* If the worker is dismissed from one factory, he may have to search far and wide before he secures a job in which he has specialised. He may be making only legs of a chair. It is doubtful, if he can get the same job. On the other hand, if he knew how to make the complete chair, his chance of getting a job elsewhere would be brighter.

(6) *Checks development of personality.* If a man has been making an eighteenth part of a pin, he becomes eighteenth part of a man. A man grows in body and mind to the extent that his faculties are exercised in his job. A narrow sphere of work must check proper physical and mental development of the worker. His outlook is cramped and initiative killed, and he is reduced to the level of a machine.

(7) *Loss of sense of responsibility.* None can be held responsible for bad production because none makes the complete article. When the result is bad, everybody tries to shift the responsibility to somebody else. This seriously hampers proper administration.

Besides proving detrimental to the worker, the system of division of labour has produced many social evils.

(8) *Evils of factory system.* Division of labour gives rise to the factory system which is full of evils. *It spoils the beauty of the place all around, leads to the exploitation of women and children and remove the personal factor* in production and management. Industry has become de-humanised.

(9) *Problem of distribution.* When there is no division of labour a worker makes the whole article independently. He gets its value, and there is no trouble. But under division of labour, many persons contribute to the production of an article. They must receive a due share of the product, and it is not easy to determine this share. Thus the problem of distribution is made difficult. It has divided the community into two warring camps, *viz.*, labour and capital. The gap between the master and the man is daily growing wider and unbridgeable.

(10) *Dependence. The dependence of one country upon another,* which is the necessary consequence of division of labour, *proves dangerous* in times of war. This dependence is the result of territorial division of labour.

Conclusion. Division of labour is no doubt attended with a number of drawbacks. Bus the advantages outweigh the disadvantages. The evils can be minimised by shortening the hours of work and providing more leisure to the worker. It is no longer possible, nor is it desirable to get rid of this system. It has made production more efficient by making an effective use of the labour force and by economising capital. There is a larger flow of cheap goods and services which satisfy the wants of man and enable him to live a fuller life. The credit side of division of labour is undoubtedly heavier.

8. **Conditions of Division of Labour.** The application of the principle of division of labour depends on certain conditions. The following are some of these conditions :—

(1) *Spirit of co-operation.* Division of labour assumes an *advanced stage of civilization.* If the people are quarrelsome and cannot work together amicably, division of labour will be out of the question. The people must have developed a *spirit of cooperation*, a spirit of compromise and accommodation, a team spirit. Without the spirit of give and take, division of labour cannot be introduced.

(2) *Extent of market. The extent of the market is another important condition.* If the market is small, there is no meaning in introducing division of labour. Division of labour requires the employment of a large number of people to whom a process or part of a process can be assigned. This results in large-scale production which pre-supposes a large demand and a wide market for the commodity.

If only one shirt a day is demanded in a village, a single tailor can satisfy the demand. There is no scope for division of labour. But as he gains reputation, he may receive orders from the neighbouring villages. In that case, it will pay him to have a few assistants. Now specialisation can be introduced. Being an expert, he will do the cutting ; his older apprentices can go on stitching and the new ones may be given elementary duties like pressing the garments, and sewing on the buttons. As the market expands, still greater division of labour will be introduced. The wider the market, the greater the scope for division of labour. This is why it is said :

"Division of labour is limited by the extent of the market."

(3) *Nature of demand.* For division of labour not only it is necessary to have a wide market, but it is also essential that the demand should be steady. A large but fitful demand will limit the scope of division of labour. A stable demand is essential.

(4) *Nature of industry.* Some industries are such that it is not possible to split up the work into distinct and separate processes. Here also the scope of division of labour is limited. Agriculture is such an industry. Possibility of splitting up production is essential for division of labour.

(5) *Law of returns.* In industries where the law of diminishing returns operates, larger output means higher costs. Hence production will be kept down. This means that the scope for division of labour has become restricted. Where the law of increasing returns prevails, the possibilities of division of labour are greater, because production will be on a largescale.

(6) *Availability of labour and capital.* Division of labour implies production on a largescale. Large numbers of skilled workers are needed. As division of labour and use of machinery go together large amounts will also have to be spent on machinery. If the required amounts of labour and capital are not forthcoming, division of labour cannot be extended.

Conclusion. These conditions are not difficult of fulfilment in most countries. There are industries which produce on a smallscale

and there are also large-scale industries. In the former, there is little scope for division of labour but in the latter complex division of labour will be found in operation.

LOCALISATION OF INDUSTRY

9. **Meaning of Localisation.** Localisation of industries is also called the geographical or territorial division of labour. This means that certain areas or towns come to specialise in the production of certain commodities. Some of them acquire a provincial reputation, while others come to be known throughout the country and even in other parts of the world. Some Kashmir products have an international reputation. Mysore silk is known all over India and Sheffield cutlery has world-wide market.

Among Indian industries which have become localised, may be mentioned the cotton mill industry in Bombay and Ahmedabad, the sugar industry in U.P. and Bihar, jute mill industry in Calcutta and the iron and steel industry at Tatanagar. These places have become famous for their products. This form of specialisation is called *localisation* or *centralisation of industries.*

10. **Causes of Localisation.** There are several factors which are responsible for certain centres specialising in certain products. It is partly due to *natural causes* like climate, nature of the soil, presence of minerals and power resources. Then there are *economic causes* like the availability of labour and capital and proximity to markets. Sometimes *political factors* also assist localisation by extending patronage and restricting outside competition.

Let us discuss these causes in detail :

(*i*) *Favourable climate.* There are certain industries which require special type of climate, *e.g.*, damp climate for spinning and weaving. The growth of certain herbs and the preparation of medicines and drugs from them need a temperate climate. The climate factor is a very important one for determining the location of an industry. The damp climate of Bombay specially suits the cotton mill industry localised there.

(*ii*) *Nearness to raw materials.* Proximity to raw materials is an essential condition of localisation, if the raw material is bulky. A cement factory must be near the limestone rock ; the iron and steel industry must be located where iron-ore fields, coal-mines and abundant water are to be found in close proximity. These conditions are ideally fulfilled in Bihar and Bengal.

(*iii*) *Nearness to source of power.* For running a mill, power is necessary. The fall of canal or a stream from a higher to a lower level may be used to generate electricity, or coal should be available nearby. Our industrial areas are centred in West Bengal and Bihar for coal is available there. Madras, Maharashtra, Gujarat, the U.P. and the Punjab are poor in coal but rich in the sources of hydro-electricity.

(*iv*) *Fertility of the soil.* Industries which are based on agriculture like the sugar industry, the dairy industry, fruit and vegetable, canning, etc., must have vast areas of fertile land all around. It

will be impossible to establish such industries in areas which are arid wastes.

(*v*) *Nearness to market.* If the market is near, the cost of transportation will be low. Many foreign concerns have been established in India so as to come close to their consumers and save transport costs. This is the case in Indian match industry.

(*vi*) *Availability of trained labour.* Some areas have traditions of inherited skill. Adequate supplies of trained labour are available there. The employers will experience no difficulty in securing an adequate supply of efficient labour. This is a great inducement to the capitalists to establish their factories there.

(*viii*) *Availability of capital.* No buisness can be run and expanded successfully without adequate credit facilities at reasonable rates. The presence of banks and financial houses in a locality encourages the establishment of trading and industrial concerns.

(*vii*) *Political patronage.* Sometimes States give certain concessions like grants of free land, advances of cheap money, subsidies, bounties, protective duties and guarantees of purchases. This attracts industries in certain areas. Many Indian industries have grown behind the shelter of the tariff walls. Many mills were started in the former Indian States attracted by the concessions granted by their rulers.

(*ix*) *Momentum of an early start.* Sometimes no particular cause is at the root of the location of an industry in an area. The industry just happened to be started there by some enterprising businessman sometime back. It grew in strength from the momentum gained from this early start. The Ludhiana hosiery industry owes its present position to this cause.

11. **Causes of Persistence.** We notice that some industries having been localised in certain areas tend to persist there even though the original causes leading to localisation may have disappeared. Every new venture in the field tends to gravitate to that particular place. Anybody who wants to start a hosiery factory will find it to his advantage to start it at Ludhiana. Why is it so ?

The following reasons may be given for this tendency :—

(1) *Trained labour.* In no other city will a man find such an abundant supply of hosiery workers as at Ludhiana. The factories working there serve as training grounds, and a supply of skilled labour is built up on which the entrants can easily draw. This is no small attraction.

(2) *Credit facilities.* In an industrial centre, several banks are started. Ample banking facilities thus become available. This is a great facility. In order to enjoy this facility, the industry is further drawn to that place.

(3) *Specialised transport.* Means of transportation may have become specialised and adapted to the needs of that particular industry. For example, railway sidings may be made available by the railway authorities. This facility attracts further concentration of the industry.

(4) *Subsidiary industries.* Many subsidiary industries grow up in this place. The main industry draws valuable support from these. For example, in Ludhiana, bleaching, washing and dyeing industries have been developed. They assist the main hosiery industry.

(5) *Industrial inertia.* An industry tends to remain where it is localised, unless positive drawbacks appear in that locality. It will even put up with small hardships and inconveniences. Man does not like to move out, if he can help it.

(6) *Other causes are* : The reputation of the place helping in publicity, publication of technical journals, presence of training and research institutes and the existence of associations to safeguard the interests of the local industry, etc., are the other causes on account of which the industry clings to that place.

12. **Advantages of Localisation.** There are several benefits which an industry derives from becoming localised in a certain place. In the above section, we have seen why an industry, having been localised in a certain place, tends to persist there. There are so many advantages of localisation.

They may be summarised as follows :—

(1) Labour gets trained. Dexterity and skill are handed down from one generation of labourers to the next. A large body of trained labour is built up.

(2) A large market for a certain type of labour is developed in the locality. Labour of this type can migrate to that locality with almost a sure guarantee of employment. Employers in search of labour of this type can also find it there.

(3) Financial facilities grow up. Banks are started there. The industry enjoys the benefit of credit facilities.

(4) Suitable means of communication and transportation get developed. This is a great advantage to the localised industry.

(5) There is a stimulus for the starting of subsidiary or supplementary industries, thus providing a wider range of employment for labour and capital. The by-products are put to economical uses.

(6) The reputation of a locality for particular goods widens the market. Orders flow in from distant places. The market is thus assured. The industry can have a steady growth.

(7) Technical journals come to be published. Training and research institutes are established from which the industrialists benefit a great deal.

(8) It brings prosperity to the locality. It provides employment and adds to the income of the people.

(9) Collective action is rendered possible. The industrialists organise themselves in associations to safeguard their common interests, and so do the labourers.

(10) Several improvements are made in the industry, because there is opportunity for exchange of ideas. There is healthy rivalry. All this is beneficial for the industry.

13. **Disadvantages of Localisation.** Localisation of industries is not an unmixed blessing. Several evils are associated with it. They are :

(1) *Dependence on the main industry is risky.* A depression in that industry is bound to spell disaster to the whole locality. It is not wise to place one's all eggs in one basket.

(2) *Scope of employment is restricted.* Employment is available for one type of labour only. In a centre, where there is a greater variety of employment, the entire family of a worker may find employment. But here only a few of them will get work so that the total family earnings go down.

(3) *Over-specialisation* leads to dependence on other centres which proves very dangerous in times of war. We may not be able to import the necessary materials and machinery. Dependence on foreign markets for the disposal of goods is also risky.

(4) The dishonesty of a few manufacturers brings into dispute all the rest. The products of the locality get a bad name, and even honest manufacturers suffer.

(5) Labour tends to lose its mobility for obvious reasons. They have to be content to remain where they are. There are few other openings in the locality.

(6) It leads to over-congestion. This seriously tells upon the health and efficiency of workers and their children. This is what has happened in Bombay, Calcutta, Kanpur, etc.

(7) Bombay during a war may paralyse the industry. Hence there is a lack of security. The big industrial cities are the usual targets of the enemy attack.

14. **Remedies.** To overcome these drawbacks of localisation two remedies may be suggested :

(*i*) *Supplementary Industries.* Several small industries which may assist the main industry may be established. This will remove the risk of unemployment and lessen the severity of the depression when it comes. It will remove the exclusive dependence of the locality on one industry, and provide other strings to its bow. This will also remove dependence on foreign markets or materials. The workers will have a wider scope of employment.

(*ii*) *Decentralisation.* By decentralisation is meant spreading out industries in various regions of a country. It will be found more economical to move industry to other less congested centres. It will remove some of the drawbacks of centralisation. Such decentralisation has been taking place in recent times. For example, cotton textile mills have been established away from Bombay and at other centres.

15. **Decentralisation or Delocalisation.** As has been said above, in recent times some industries have left their original homes and migrated to other localities, or moved abroad. In some cases, the advantages originally available from localisation have disappeared, or greater advantages have become available elsewhere.

The following are the main causes responsible for this tendency :—

(1) *Advent of electricity.* With the coming of electricity, it is no longer necessary to locate the factories near coal-mines or on the banks of rivers or streams. Electricity can be supplied at a distance of hundreds of miles from the generating station. If, therefore, localisation was due to the nearness to the source of power, this factor has now ceased to operate.

(2) *Development of means of transport.* On account of improved transport, distant markets can be approached and distant sources of raw materials tapped. The industry need not be located near the market or the raw materials, if there are other more important advantages elsewhere. Thus industry gets decentralised.

It is worth noting that *development of the means of transport works both ways. It helps concentration and also assists decentralisation.* It helps concentration in this way that if the local supply of raw materials has become insufficient, they can be imported from abroad. The industry will develop further in the locality to reap benefits of localisation. But it also assists in decentralisation. For example, if the market is more important than the materials, then the factories can move out, and get established in or near the market. Raw materials can be transported to that place.

(3) *Higher costs in old centres.* A rise in costs in old industrial centres and concessions available elsewhere helps decentralisation. It is found that as industries grow up, rents rise and so do the municipal taxes. The cost of living also goes up which necessitates the payment of higher wages. Factory sites are also very costly. All these factors render it uneconomical to start factories there. On the other hand, cheap sites for factories may be available elsewhere. Our cotton mill industry is becoming decentralised. Bombay has been found to be a dear place. It is also distant from consuming centres like the Punjab. The rulers of the old princely States offered various concessions, *e.g.*, cheap loans, free lands, State patronage, subscription to share capital, guarantee of a minimum dividend, etc. Thus several cotton mills were established in States like Hyderabad and Indore.

(4) Improved organisation for collection and distribution of goods has made it unnecessary for industries to remain wedded to the local markets. They can thus move out with advantage. This leads to decentralisation.

(5) The last war has shown that centralisation is dangerous, as a crowded area is more vulnerable to bombing from the air. Wise governments, therefore, encourage the spreading out of industry. The industry gets decentralised.

Most of the Indian industries suffer from over-centralisation. A degree of decentralisation is essential. Decentralisation, however, does not necessarily mean decentralisation of control. A mill started in undeveloped areas may still belong to the people who are in the industry. A Swedish combine has established a network of match factories all over India. There is centralized ownership and control but decentralised production. Decentralised economy is the goal of our economic development as visualised in our Five-Year Plans.

WHAT YOU HAVE LEARNT FROM THIS CHAPTER

Meaning of Division of Labour. It means splitting of the making of an article into a number of processes and assigning each to a different group of workers.

Simple and Complex Division of Labour. When we cannot find out how much work each labourer does in a combined task, it is *Simple Division of Labour.*

Complex Division of Labour. Each man is assigned an incomplete, but a separate, process to perform.

Forms of Division of Labour :

(*i*) Specialisation by trades.
(*ii*) Specialisation by tasks.
(*iii*) Specialisation by complete processes.
(*iv*) Specialisation by incomplete processes.
(*v*) Territorial or geographical division of labour.

Economic Effects of Division of Labour. Effects are both good and bad :

(1) Production is cheaper, but mass production does not satisfy individual tastes.
(2) Production has become more capitalistic.
(3) Labourer's work has been simplified, but the work has become monotonous, and the risk of unemployment has increased. He is at the mercy of the employer.
(4) There is economic progress, but the problem of labour *vs.* capital has risen.

Merits of Division of Labour :

(1) The right man in the right place.
(2) Practice makes a man perfect.
(3) Machinery relieves man of strenuous and monotonous work.
(4) Long training is unnecessary for the worker.
(5) It leads to the introduction of machinery.
(6) Mass production is cheaper.
(7) Standardised production extends the market.
(8) Saving in time.
(9) Specialisation in the entrepreneurial work has increased productivity.

Demerits of Division of Labour :

(1) Work has become irksome and monotonous.
(2) Creative instinct has been killed.
(3) It checks mobility of labour.
(4) It increases chances of unemployment.
(5) The worker becomes narrow-minded.
(6) It has killed the sense of responsibility in the worker.
(7) The worker's skill has deteriorated.
(8) Evils of the factory system.
(9) The problem of distribution rendered difficult
(10) Too much specialisation means dangerous dependence on others.

Conditions of Division of Labour :

(*i*) Spirit of co-operation and compromise.
(*ii*) The size of the market.
(*iii*) The nature of demand.
(*iv*) The conditions of trade.
(*v*) The nature of the industry.
(*vi*) Availability of labour and capital.

Localisation or Centralisation of Industries

Its meaning—Some places or areas specialise in the production of certain articles.

Causes of Localisation :

(1) Natural factors like climate. (2) Nearness to raw materials. (3) Proximity to power. (4) Fertility of the soil. (5) Nearness to markets. (6) Availability of capital. (7) Availability of trained labour. (8) Political patronage. (9) Momentum of an early start.

Causes of Persistence of Localisation :

(1) Trained labour available.

(2) Financial facilities.

(3) Means of transport specialised.

(4) Supplementary and subsidiary industry established.

(5) Industrial inertia.

(6) Technical journals, research and training institutes.

Advantages of Localisation :

(*i*) Improvement in the skill of the workers.

(*ii*) Employment guaranteed for that type of labour, a regular labour market developed.

(*iii*) Banks grow up.

(*iv*) Growth of supplementary and subsidiary industries stimulated.

(*v*) Development in the means of transport and communication.

(*vi*) Reputation widens the market.

(*vii*) Technical journals, research and training institutions established.

(*viii*) The locality becomes prosperous.

(*ix*) Joint action both by the industrialists and labour becomes possible.

(*x*) Improvement in industry.

Disadvantages of Localisation and their Remedies :

(*i*) Exclusive dependence on industry.

(*ii*) Field of employment narrowed down.

(*iii*) Over-specialisation means dependence on foreign countries.

(*iv*) Dishonesty of a few businessmen in the locality may spoil the business of others.

(*v*) Mebility of labour reduced.

(*vi*) Over-congestion tells upon the health and efficiency of the workers.

(*vii*) Danger from air bombing in war times.

Remedies :

(*a*) Starting of subsidiary industries.

(*b*) Decentralisation of industries.

Causes of Decentralisation or De-localisation :

(*i*) Advent of electricity.

(*ii*) Development of the means of transport.

(*iii*) Rise in costs in the old localities and concessions available in new ones.

(*iv*) Improved organisation for collecting and distributing goods.

(*v*) Fear of bombing.

CAN YOU ANSWER THE FOLLOWING QUESTIONS ?

1. *What do you understand by 'Division of Labour' ? What are its various forms ?* [See Secs. 2 and 4.] *(Delhi 1950)*

2. *What are the different forms of Division of Labour ? Explain how "Division of Labour is limited by the extent of the market."* *(Delhi Pre-Univ. 1961)*

[For meaning of division of labour see Secs. 2, 3 and 4. For the second part see See. 8 (2).]

3. *What is the meaning of Division of Labour ? Discuss its merits and demerits.* [See Secs. 2, 6 and 7.] *(Utkal Inter Arts 1960 Suppl ; P.U. 1959)*

4. *What are the advantages of division of labour ?*
'Division of labour is limited by the extent of the market.' Explain ?
(P.U. H. S. 1962)

5. *(a) Is it correct to say that the extent of the market is limited by division of labour ?*
(b) Is Division of Labour necessarily beneficial ? *(P.U. 1942)*
(c) "Division of Labour is not an unmixed blessing." Discuss.

[(a) To some extent it is true that the extent of the market is limited by division of labour. Division of labour results in standardised production on a large scale. This widens the market. Hence the extent of the market is limited by division of labour. But it is more true to say that division of labour depends on the extent of the market. The larger the market the greater is the scope for the introduction of division of labour (See Secs. 2, 8). The fact is that the market and division of labour are inter-dependent.

(b) No. It is not necessarily beneficial. No doubt there are many benefits of division of labour (See Sec. 6). But there are also disadvantages (See Sec. 7). On the whole it is beneficial.]

6. *Is it true to say that division of labour increases immobility of labour ? Show how division of labour is limited by (a) the extent of the market, and (b) the nature of employment.* [See Secs. 7 and 8.]

7. *What is meant by 'Localisation of Industry' ? In what parts of India are the industries named below localised and what are the reasons for their localisation there ?*

(a) Cotton Industry. (b) Glass Industry. (c) Leather Industry. (d) Iron and Steel Industry. (e) Jute Industry.

[(a) **Cotton Industry** is localised in Bombay. It is due to damp climate, port facilities for the import of machinery and cotton, and export of yarn, cotton-growing tracts nearby, availability of finance and entrepreneurial ability.

(b) **Glass Industry.** Ferozabad (U.P.). Clay and sand used in the industry are found in the neighbourhood ; wide market.

(c) **Leather Industry.** At Kanpur and Agra in the U.P. due to Government patronage and availability of hides ; also in the parts of Madras Presidency as tanning materials are obtained locally from the bark of a tree.

(d) **Iron and Steel Industry.** In Bihar and Bengal, in close proximity to coal and iron ore mines.

(e) **Jute Industry.** Around Calcutta where the raw material and powor are easily available.

8. *What are the factors leading to localisation of industry ? Mention the consequences of such localization.*
(Agra 1942 ; U.P. board 1953 ; Bihar 1953 ; Bombay 1954)
[See Secs. 10, 12, and 13.

Or,

What do you mean by territorial division of labour ? Consider its merits and possible drawbacks. [See Secs. 9-13.] *(U.P. 1932 ; Delhi 1955)*

9. *Discuss the causes, advantages and disadvantages of localisation of industries.* [See Secs. 9, 10 and 13.] *(Ajmer 1951)*

Or,

What are the causes of the localisation of industries ? What are its chief advantages ? [See Secs. 10 and 12.] *(C.U. 1956)*

10. *What are the causes which have led to the decentralisation of industries?* [See Sec. 15.]

11. *Fill in the blank by using one of the words given in brackets—*
Division of labour is——(limited, not limited) by the extent of the market.
(P.U. Pre-Univ. 1961 Suppl.)

CHAPTER XI

FACTORS OF PRODUCTION (*Contd.*)

CAPITAL AND MACHINERY

Cash alone is not Capital

1. **Introduction.** We have considered two primary factors of production—land and labour. We now come to the third factor—capital—which is not considered a primary or original factor. It has come into existence because of the two primary factors. That is why it is called a '*produced factor*'. It is the product of land and labour.

2. **Nature of Capital.** Let us understand clearly the sense in which the term 'capital' is used by economists. To a man in the street, capital means cash in hand or money in the bank. To him a capitalist is a moneyed man. A businessman has a different conception of capital. In capital he includes factory, tools, machines, office equipment, his balance in the bank, etc.

The economist's definition of capital is that **it consists of that part of a man's wealth other than land which is used in the production of further wealth or which yields an income.** Just think of a rich man and his wealth. Probably he owns some land, has a fine house to live in, runs a factory or a shop, and keeps a car. Out of these, the house with all its furniture and the car yield him direct satisfaction. They are not capital, as they are not used for further production. But his land, factory and shop help him in production. Land has special peculiarities and is not considered capital. But the factory and shop come under capital. They help the owner in the production of further wealth and yield him income. For the same reason, a manufacturer's tools and machines and the farmer's seeds and oxen are capital. *Anything that helps production or yields income is capital in Economics.*

Capital may be looked at from the individual point of view or from the social point of view. From the individual point of view, capital is that part of wealth which yields an income, while from the social point of view capital consists of wealth which aids in the production of further wealth. There are certain forms of capital like a factory which fulfil both these purposes. They aid production as well as yield income. There are some goods which are capital from the individual point of view, but not from the social point of view. A war bond yields income to the individual and is capital from his point of view. But the Government uses the money so collected in making bombs and shells which end in smoke. They destroy rather than produce, and cannot be considered capital by any means. The same is the case with a loan raised by a spendthrift. The lender gets an income from it, but the money borrowed

is probably wasted. It is better, therefore, to keep the individual and the social points of view separate to avoid confusion.

When land and labour (or man and Nature) co-operate and work together, wealth is produced, A part of the wealth is used in satisfying human wants immediately and directly. The rest is used for producing permanent goods which will satisfy human wants later on, but indirectly. *These intermediary goods used in producing further wealth are called capital goods or capital.* We can illustrate this idea after Penson as follows :

Productive effort results in wealth.
Wealth is either consumed or saved.
Saved wealth is employed as capital.
Capital assists fresh productive effort.

Wealth and Capital. From the definition of capital, it is clear that capital consists of valuable economic goods which are scarce. Such goods are called wealth in Economics. *All capital, therefore, is wealth. But all wealth is not capital.* Only that part of wealth, which is used productively is called capital. The car which is used for personal enjoyment is wealth, but not capital. Wealth and capital are, therefore, not synonymous.

Capital and Money. Capital may take the form of money when it is put in a bank. But capital also consists of tools, machinery, seeds, etc. which money buys. Hence capital may or may not be money. When money is used for making more money, it is capital, but when it is hoarded, it is not capital. *Thus money may or may not be capital.*

Capital and Income. Capital and income should be distinguished from each other. The factory that a man owns is his capital, but the profit that he gets out of it every year is his income. *Capital is a fund (or stock) and income a flow.* Income flows in at regular intervals. It is calculated per week, per month or even per year.

Are Consumers' Goods Capital. ? Capital consists of producers' goods, *i.e.*, goods used in production. But consumers' goods in the hands of producers are also capital. If a factory owner keeps a stock of wheat for his workers and uses it to feed them, this wheat assists production, and is, therefore, capital. Food may thus be regarded both a producer's good and a consumer's good. A car when used by a doctor for an evening drive is not capital but when used for paying a visit to his patients, is capital. Some economists, like Benham, regard most consumers' goods as capital for they yield satisfaction to consumers and enable them to produce further wealth.

Is Land Capital. Logically land should also be regarded as capital, because it is a type of wealth which yields an income. But land is by itself so important and so peculiar that it is best considered a separate factor. Land is nature's free gift to man ; it is limited in area, and is of infinite variety. On the other hand, capital is man-made, and can be increased at will. Land lacks mobility, whereas capital is fairly mobile. Land has no supply price, *i.e.*, its supply does not depend on the price for its use (*i.e.*, rent). If, therefore, rent falls, its supply cannot be withdrawn. But the supply of

capital varies with its price (*i.e.*, interest). For all these reasons land is not regarded as capital.

3. **Forms of Capital.** Capital does not take the form of money or machines only. It assumes several forms some of which are given below :—

Fixed Capital. It is clear from its very name that this form of capital is of a permanent nature, *e.g.*, plant and machinery. It continues to give service for a number of years, and is lasting.

Circulating Capital, on the other hand, is not of a durable nature. It serves its purpose only once. It is finished up in one use, and can no longer serve as capital. The example is that of raw materials like cotton and jute. They get used up in the manufacturing process. Circulating capital also refers to the stock of finished products or consumers' goods.

It is worth noting that the same thing may be fixed capital for one person and circulating capital for another. For a dairy the livestock is fixed capital, but for a breeder, who sells cattle, it is circulating capital. The machine is fixed capital for the manufacturer of goods, but circulating capital for the machine-making factory.

Sunk Capital. When capital has been so used or invested that it cannot be put to any other use, it is called sunk capital. It has become *specific* for a particular use. For example, a farmer may spend Rs. 25,000 on a tube-well. The money has been sunk in one use. It is no longer available for any other use. It is sunk capital.

Floating Capital, on the other hand, is *non-specific.* It can be put to any use. Capital in the form of money can be invested in any industry. It is floating capital.

Working Capital means the capital which is used in running a business, the stock of raw materials, semi-finished goods and finished goods which a manufacturer usually maintains in his godown to carry on his manufacturing business. Money for payment of wages to labourers is also included in it.

4. **Importance of Capital.** There cannot be two opinions about the importance of capital. Even in the most primitive stage of civilisation man felt the need of some kind of tools. The hunter had his bow and arrows, and the fisherman his net. In the pastoral stage, the herd of cattle was man's capital. In the agricultural stage, a number of implements were required which made man more dependent on capital. Seed could not be sown without thorough ploughing ; and a plough was needed. Even sowing needed some implements to ensure the seed being planted in rows and uniformly scattered. Fields could not be irrigated without the aid of tools.

In modern times, which may be called the industrial stage, capital has assumed even greater importance. Huge cranes, powerful engines and machines of precision and delicacy are in use. There are railway trains and steamships, mills and factories. They are all capital. Is any production possible without them today ? Perhaps a few goods could be produced without them. But the volume of

production needed to support the world population today could never be obtained without them.

For some tasks machines are indispensable. In other cases, they make an immense addition to man's capacity for production. Man has been able to attain a measure of mastery over nature only through capital.

The economic prosperity of a nation is in direct proportion to the capital it owns. A country without capital must remain poor. Today capital dominates and controls production. Labour plays a second fiddle. The importance of capital, therefore, can hardly be exaggerated.

5. **Origin and Growth of Capital.** If the primitive man wanted a fishing net, he needed food to live on while he was busy making it. In other words, to have capital he must abstain from consuming all he had. *The capital was partly the result of waiting and abstinence on the part of man and partly of his diligence and industry.* Passive waiting alone cannot produce capital.

Once having come into existence, capital adds to the productive capacity of man, and helps in the creation of more capital. The effect is cumulative. When the primitive man makes a fishing net, he is able to catch more fish with less fatigue. This feeds him better with much less exertion. Now he can make more and better fishing nets.

The growth of capital in a country is due to two sets of forces : the *power to save* and the *will to save.* Let us now study these forces.

Power to save in any country depends on several factors :

(*i*) It depends on the *surplus of production over consumption.* If a country produces more than it can consume, capital will go on accumulating. The greater the production, the greater the possibility of accumulating capital. Production will be greater if agriculture, trade, and industry are efficiently organised. If agriculture is being carried on in an unscientific manner, and if industry is not fully rationalised, the productive efficiency will be comparatively low. It is also necessary that means of communication and transportation should be properly developed. Volume of production, further, depends on climate and physical conditions as well as on the number and the character of the people. When these conditions are favourable, income will be large, and capital will accumulate.

(*ii*) *Channels of Investment.* People have greater power of saving if banks, insurance companies and other safe channels of investment are available in the country. An efficient banking system mobilizes capital resources. In its absence capital remains scattered and barren.

(*iii*) *A good system of money stimulates saving.* If the currency is unsound, unstable or unpopular, it will discourage people from saving. Who wants to keep defective currency ?

(*iv*) *A well planned system of taxation* not only enables a government to secure enough funds for its purpose, but also leaves trade and industry free enough to flourish. Heavy taxes cripple

trade and crush industry. Some industrialists believe that the E.P.T. (Excess Profits Tax) handicapped Indian industry and checked its development during the War of 1939-45. Liaqat Ali Budget (1947-48) discouraged investment and militated against capital formation. Such taxes stand in the way of increase of capital.

Some of the above factors also affect the will to save. For example, a heavy tax discourages saving. A good banking system induces it.

The **will to save** depends on the motives which induce a man to save. There are, besides, some external factors also. They are :

(*v*) *Provision against old age and unforeseen emergencies.* A man saves money during his working life, because he knows that a time must come when he will be too old to work. He must live on his savings. He also saves to provide against a rainy day. Some emergencies and unforeseen expenses do arise, and he must have the means to meet them. He may fall seriously ill, or he may have to help a relation, or a friend in need.

(*vi*) *Family affection.* A man saves money in order to ensure his family an adequate income to maintain a suitable standard of life. Family affection thus strengthens the will to save.

(*vii*) *Desire for success in business.* A man's desire to achieve success in business acts as a great incentive for saving. Without saving money, a man cannot have capital enough to ensure success in business.

(*viii*) *Desire to win social and political influence.* In these days, social influence and political powers come with money. Not only is a moneyed man respected, but he can also secure a seat in the legislature. People whose mind works in these directions make money and save it.

(*ix*) *Force of habit.* Many people save because they cannot help it. This happens with the misers. Spending is against their very nature, while saving with them is automatic.

(*x*) *Rate of interest.* The higher the rate of interest the greater is the inducement to save. When the rate of interest rises, many people, who were not saving before, are tempted to save.

But the effect of the rate of interest is exaggerated. The rich man saves not to earn interest but because he can save. The rate of interest does not influence him much. For the poor man, too, who saves only a small amount (say, hundred rupees in a year), a rupee or two that he may earn as interest can hardly be considered enough inducement. Thus the rate of interest has some influence but is not a dominant consideration.

In some cases, the rate of interest has quite the opposite effect. If a man is saving to assure himself a certain fixed income, the higher the rate, the smaller the sum that he will have to save to get it, and *vice versa.*

Hence much importance should not be attached to the rate of interest as a factor in capital formation.

(*xi*) *Law and order in the country.* If the Government of the country is strong enough to guarantee security of life and property,

the people's will to save is strengthened thereby. In a peaceful country, they are sure to reap where they have sown. Insecurity is the greatest enemy of saving.

In the case of India we notice that the factors which strengthen the *will* to save are present. They act even more strongly here than elsewhere. But the power to save is weak. The *will* is there but the *power* is lacking. Hence there is much less saving and much less capital in India than in the Western countries. In Europe and America, industrial efficiency has reached a high level. Enormous incomes are earned, out of which saving is easy. The conditions there are ideal for saving. No wonder that the people there are able to accumulate large amounts of capital which not only suffice for their own needs, but can also be lent out to assist production in the economically backward countries.

CAPITAL FORMATION

It may however be remembered that savings, though a necessary condition, are not a sufficient condition for capital formation. There must be entrepreneurs who are willing as well as capable of using the resources made available (by an act of saving) for investment. Hence the crucial importance of the entrepreneur, which we shall discuss in the immediately following chapter.

Capital formation involves three broad stages : (*a*) The creation of savings which depends upon the will to save and the power to save ; (*b*) mobilization and canalization of savings converting them into investible funds, which depends on the efficiency of the banking system ; and (*c*) acquisition of capital goods which depends on the entrepreneurial enterprise. There are a few hurdles in the way of capital formation. Some savings may be hoarded and not made available for investment. Some savings may be ploughed back into business by the owners. There is also a time lag between the accumulation of funds and acquisition of capital goods.

A very important element in capital formation is investment of savings in trade and industry. Actual investment depends on the various inducements to invest available in the economy. There are two broad factors on which inducement to investment depends ; *viz.*, the prevailing rate of interest and the expected rate of profit, *i.e.*, the marginal efficiency of capital.

At present in India the conditions are not so favourable for capital formation. The middle classes, which generally save and invest, have not been able to recover from the wounds of prolonged inflation. Investment is also discouraged by the fear that the industries may be nationalised. The industrialists also say that heavy taxation and liberal policy towards labour have seriously reduced the capacity of the businessmen to save. To ensure rapid economic development, however, the Government have recently taken up a number of measures to step up capital formation. The measures include tax relief, assurance of proper compensation in case of nationalisation, etc. Again, by increasing her own volume of investment, Government is considerably increasing capital formation in the country.

6. **Functions of Capital.** Capital is valued for the very useful functions it performs in the production of wealth. In fact production would almost come to a standstill without adequate and suitable capital.

The following are its main functions :—

(*i*) *Supply of Raw Materials.* Capital supplies raw materials. Every businessman must have on hand a sufficient supply of raw materials of a good quality. A cotton mill must have cotton ready in its godown ; a paper mill must keep straw or bamboo cuttings ; a sugar mill must buy large quantities of sugarcane, and so on. This is undoubtedly very essential, otherwise how is production to go on ?

(*ii*) *Supply of Appliances and Machinery.* Another equally necessary function that capital performs is the supply of tools, implements and appliances. It is clear that these things are essential for production. Without their aid large-scale production is impossible. Tools are needed even in the most primitive stage of economic development. But they are all the more necessary today when production has become capitalistic. Modern industry is highly mechanized in the West ; even agriculture employs all sorts of machines like tractors, threshers, harvester-combines, etc. All these are obtained with capital.

In India, where labour is cheap and abundant, there is not so great an urgency for use of machinery and labour-saving devices. But even here an increasingly large number of machines of various types are being put into use. A mill equipped with modern machines turns out a large output at less cost per unit. To supply machinery is, therefore, a very important function of capital.

(*iii*) *Provision of Subsistence..* Capital provides subsistence to the labourers while they are engaged in production. They must have food, clothes and lodging. Production today is a long-drawn-out affair, and has to pass through many stages. It may be after years that the goods reach the market and bring income to the manufacturer. Means must be found to bridge this gap, and this is the function which capital performs. It provides means of subsistence for the workers when they are engaged in the work of production.

(*iv*) *Provision of Means of Transport.* Goods have not only to be produced, they have also to be transported to the markets and put into customers' hands. For this purpose means of transport, like railways and motor-trucks, are essential. A part of the capital must be devoted to the supply of this need.

(*v*) In modern times, capital is performing another very important function, *viz.*, to provide employment. This function is of special importance to under-developed or developing economies. Among the determinants of employment in a country, probably the most important is the saving and its investment in the form of capital. Application of capital to agriculture, trade, transport and industry creates work on the farms, in the factories, in commercial houses and on roads, railways, ships, etc. It is the lack of capital which is responsible for unemployment, or under-employment

in backward countries like India. Asure way to tackle the problem is to create more and more capital.

7. **Efficiency of Capital.** The volume of production will depend not only on the amount of capital that a producer has at his disposal, but also on the quality or efficiency of this capital. One good machine may be able to turn out more goods than two out-of-date or worn out machines.

The productivity of capital depends on the following factors :—

(*i*) *Quality.* Capital must be of a high quality. First-rate goods cannot be produced on the third-rate machines. The machinery must be modern and up-to-date. It should not be obsolete or worn out.

(*ii*) *Suitability.* It is also necessary that the machine must be suited to the purpose in hand. If the machine in a paper mill cannot, for instance, work on bamboo pulp without being damaged, efficiency must suffer. Similarly, if a spinning frame is fitted with spindles larger in number than can be looked after by a worker, it is obviously unsuitable.

(*iii*) *Proper Balance.* The various sections of the plant must be properly balanced. The Indian Tariff Board found that the plant in the Indian paper and sugar mills was not balanced. In the paper mills, the pulp-making section had a large capacity than the paper-making section. Similarly in the sugar mills, the crushing section had a larger capacity than the refining section. This lack of balance means less production and higher cost.

(*iv*) *Manner of Application.* Efficiency of capital also depends on the methods of using the equipment. Wrong use or use for a wrong purpose results in less production, and damages machinery.

(*v*) *Labour Efficiency.* The use of delicate and costly machinery needs skill and experience. Good machines in unskilled hands will not work well, and bound to be damaged. Labour and capital work together. The efficiency of the one obviously depends on the efficiency of the other.

(*vi*) *Regular and Adequate Supply of the Raw Materials.* To turn out commodities of a good quality calls for a regular supply of suitable raw materials. A good machine using third-rate materials. cannot turn out first class goods.

(*vii*) *Managerial Efficiency.* Production is a combined effort. Unless it is properly organised, it will make a mess. Much depends on the personality and the ability of the man at the helm. An inefficient manager cannot make the capital equipment yield the best results.

8. **Mobility of Capital.** Mobility of capital refers to the readiness with which capital moves from one place to another, or from one country to another. It also means the extent to which a certain capital equipment can be put to alternative uses.

There is no doubt that capital moves more freely from place to place than labour, yet it will be wrong to think that capital is absolutely mobile. The mobility of capital depends really on the form that capital takes. Working capital is fairly mobile. Capital, in the

form of money, is absolutely in a floating state and can be put to any use and may be taken anywhere. A slight difference in the rate of interest offered between, say London and New York, is sure to move capital, which is meant for short-term investments from one centre to the other. The raw materials and semi-finished goods possess a little less mobility. The tools and implements and simple machines, which can be used in every industry, are also quite mobile. But the most important and the most expensive part of capital consists of fixed or the sunk capital, *e.g.*, heavy machinery, factory buildings, etc. This type of capital lacks geographical mobility, nor can it be easily diverted to any other use when specialized. Even if it is not earning good profit, it must continue in the same trade. Hence mobility of capital varies with its form. In the form of money, it is most mobile and as fixed capital, it is least mobile.

It will, however, be wrong to think that capital is absolutely immobile. Capital is of impersonal nature and it moves more readily from place to place. It has almost become cosmopolitan in character. Machinery with very slight modifications can be made to turn out a fairly large variety of commodities. Even if it can produce one commodity, it can be made to produce different designs of it. Further, flexibility to capital structure is given in another way. New savings are diverted to new uses and the old plants are not replaced exactly in the same form, if conditions have changed. Hence we may conclude that for practical purposes capital possesses a fair degree of mobility ; at any rate it has greater mobility than is generally supposed.

Nevertheless it cannot be denied that there are several obstacles in the way of capital moving from one place to another. International political security is yet lacking. Mobility is impeded also by State control of investment, the general preference for home investments and the liability to heavier taxation in other countries and the uncertainty of being able to bring the profits home. It is checked by any other factors which keep the capital sticking to home investments.

That there is comparative immobility of capital is shown by the fact that we have got a separate theory of international trade. No such theory would have been necessary if labour and capital had been freely mobile. India in recent years has been wooing foreign capital but has not succeeded much.

In India, the degree of mobility is even less. India is a vast country inhabited by diverse people, speaking different languages and having different customs. The system of taxation in the various Indian States is also not uniform. People with money generally prefer investing it in land or housing property, or they engage in money-lending. Spirit of industrial and commercial enterprise is lacking. There is also the bad habit of hoarding and the fondness for ornaments and jewellery. Frequent company failures and bogus company promoters also frighten away capital. Adequate credit and banking facilities are lacking. Business morality is not too high. In view of all these factors, Indian capital does not move freely from one place to another inside the country, not to speak of

its movement abroad. Indian investment in foreign countries is next to nothing.

9. **Capitalistic Production.** Production in modern times has been called capitalistic because its outstanding feature is the use of capital on a large scale. Huge amounts of money are spent on intermediary or producers' goods. Even for the production of simple articles, expensive machinery is used. Think of any industrial unit—a cotton mill, a sugar mill, a cement factory or iron and steel works. Everywhere you will find operations being carried out with the help of costly machines.

Capital was used even in the earliest stages of human civilisation. But then it consisted of a few crude implements which it did not cost much to make. Today, capital is not indispensable, but is very costly. We know that everybody cannot start a business these days. It requires large capital. No businessman can successfully compete with his rivals in the market without adequate funds. Capital wholly dominates production in these days. Hence production is called capitalistic.

Capitalistic production is round-about production. This means that much greater effort is being spent in the making of instruments of production than in the production of consumers' goods which give direct satisfaction. The greater the amount of capital in use, the more indirect is the production. A savage living on the bank of a river can catch a fish or two even with his bare hands. In this case production is simple and direct. But to catch more fish, the savage has first to make a net and a boat, however primitive they may be. This means that production becomes indirect. In modern times, the fishing industry is so advanced that it needs an elaborate equipment of motor-boats, costly nets, and even explosives. The factory has to spend large amounts of money on this equipment before efficient fishing is possible. In other words, production has become more indirect and round-about. The chain of processes required for production is being lengthened out.

Round-about methods are adopted simply because they are more efficient and productive. These methods definitely increase the productive capacity of the community. In fact, "the longer way round has proved to be the shortest way home."

USE OF MACHINERY

10. **Introduction.** Modern age is the age of machines. Wherever we may look, we shall find some sort of machinery in use. Machinery has become a hall-mark of civilisation. In advanced countries, man is being increasingly replaced by machinery. The latest electric fittings in residential houses in the West have dispensed with domestic servants. Ploughing, sewing, harvesting and watering are all being done by machines. Only a few labourers are needed to work these machines. Coal is not touched by human hands from the pit to the wagon. Many tinned foods are wholly processed by machines. In the work of production, man seems to be rapidly becoming superfluous.

11. **Benefits of Machinery.** Machinery is being extensively used because of certain advantages. The following are the chief advantages of the use of machinery :—

(1) *Use of natural forces.* Machinery has harnessed the forces of nature in the service of man. Man can fly in the air ; he can send messages thousands of miles away ; he generates electricity from waterfalls. All this he has done with the aid of machinery. For such jobs the use of machinery is indispensable.

(2) *Heavy and delicate work.* Tasks, which are too heavy or too delicate for human muscles to do, can easily be done by a machine. A crane can lift loads which a man never can. No man can produce silk as fine and delicate as a spider's web, but a machine can. Without the aid of machinery such jobs would not have been done.

(3) *Faster work.* While man can make only a few dozen pins in a day by himself, with the help of machinery he can make thousands. A *charkha* cannot spin as much yarn in a year as a spinning machine can in one day. We value machinery for the speed with which it works, and in the modern world speed matters the most.

(4) *More accurate work.* No painter can paint *exactly* the same picture twice. But machine can turn out thousands of identical articles. Production has thus been standardized. Only machines are capable of mass production.

(5) *Strain on human muscles relieved.* The work of the labourer has become much lighter. He has simply to pass a knob, and lo ! the machine starts working ! Thus machinery has proved a great blessing to the workers.

(6) *Cheap goods.* The use of machinery has resulted in large-scale production and has reduced costs to levels never dreamt of before. Thus cheap goods have been placed in the hands of consumers. A man of ordinary means can now enjoy goods and services which were not available even to a rich man in the past. Consequently the standard of living has risen.

(7) *Mobility of labour.* In most industries the machines used are very similar. A worker, therefore, can easily move from one industry to another. This is helpful in relieving or preventing unemployment as well as finding better jobs.

(8) *More employment.* The introduction of machinery has created many new occupations. It has thus widened the scope of employment. In the long run, machinery creates more employment than displacing labour immediately.

(9) *Disagreeable jobs.* All dirty jobs can be done by machines. Human beings are thus relieved of all disagreeable and unpleasant jobs. What a great boon machinery is to the under-dog !

12. **Abuses of Machinery.** Machinery has not proved to be an unmixed blessing. Whereas it has undoubtedly conferred untold benefits on mankind, it is also associated with certain evils which are given below :—

(1) *Unemployment.* One machine can do the work of many men. As machine comes in, tho man goes out. Only a few workers are needed for cleaning, managing and supervising the running of machines. Introduction of machinery thus creates unemployment.

Does machinery really create unemployment ? No doubt, the immediate effect of the introduction of machinery is the displacement of labour. In the long run, however, machinery creates more work. People are needed for making machines and for repairing them ; lower prices increase the demand for goods, and bring about a rise in the standard of living. Production is, therefore, increased and diversified and many new occupations are created. *Thus, we can say that immediately machinery displaces labour, but ultimately it creates more employment.*

(2) *Monotony.* Machinery has made the labourer's work monotonous and irksome. The worker has nothing to do except to go on performing a few mechanical operations day in and day out. *It has increased nervous strain.*

(3) *Loss of skill.* The craftsman with the superior skill has disappeared. Such skill is no longer necessary. The only type of skill that is needed now is to run the machines. The man who made the Dacca muslin has now only to look after the running of a machine. What a great national loss !

(4) *Goods not artistic.* A painting is a thousand times more beautiful than a photograph. The former has character and colour, the latter is just a print without individuality. From the point of view of art, it is a great loss.

(5) *Dependence.* Machinery has increased our dependence on others. We depend for our water and light on the satisfactory working of water-works and the power-house. A small flaw would result in the supply of these necessaries being cut off at any time. This may mean not only inconvenience but serious dislocation of normal life.

(6) *Destructive.* Man's capacity to destory and harm has grown a thousand-fold. Look at an atom bomb. A flourishing city like Hiroshima was destroyed in a moment. Wars have become more terrible now. We must condemn machinery for the destruction it brings.

(7) *Insanitary surroundings.* Big factories pollute their surroundings and make them filthy and insanitary. Tender children and women are put to work in them. Thus machines and factories have killed the joys of family life. This has led to moral degradation and physical deterioration.

(8) *Over-specialization.* Machinery leads to too much specialisation. A worker has a narrow sphere of work, and he knows nothing else. This over-specialisation increases the risk of unemployment.

(9) *Class-conflict.* Use of machinery is responsible for class-conflict—the capitalist on one side and the labourers on the other. The class-conflict has led to disruption of social harmony. It is

becoming sharper every day. It is responsible for so much unrest that prevails in the world today.

Conclusion. That the introduction of machinery has caused certain social and economic evils cannot be denied. But it should be remembered that *it is mainly the abuse of machinery which is responsible for these evils.* There is nothing wrong with machines. *Man* uses them to destroy his fellowmen. It is *he* who employs them to exploit others. The machine is only a passive instrument. If it does harm, the blame is wholly man's. This harm is preventible.

Machine work is no doubt monotonous and irksome, but the introduction of machinery has provided the workers more leisure. The hours of work can be shortened. The other evils of factory system too can be remedied Machine products are not necessarily inferior. They are improving in quality and becoming more artistic. A streamlined car of today is a thing of beauty indeed. If we want to make our lives fuller and if our country is to compete successfully with other countries in trade and industry, the use of modern machines is essential.

13. **What Limits the Use of Machinery ?** Machinery has many advantages. But it is not always possible to introduce it. Machinery is out of place in the following circumstances :—

(1) *Individual tastes.* When production has to suit individual tastes, it is not possible to set up machinery. Machinery can produce only standardized goods. The village shoe-maker can embroider shoes in a different pattern every time to suit the liking of each customer. The handloom weaver can make cloth varying in width, and turbans and *dhotis* witn different borders. In such cases, the handloom has an advantage over the power-loom. Hence, where each customer has his own whim, only a hand-worker can satisfy all of them. A machine, for instance, can never replace a tailor.

(2) *Costly materials.* Machines cannot be used where the material used is exceptionally costly. The making of jewellery, where gold, silver, pearls and diamonds have to be used, cannot be entrusted to machines. Machinery involves the employment of a large number of workers. They cannot be trusted in trades where materials are weighed out in grains.

(3) *Nature of industry.* There are certain industries where the operations cannot be reduced to a few simple mechanical move-ments, *e.g.*, in agriculture, horticulture, etc. In such cases, machinery can have only a limited use. Man plays a much more important part here than machines. Although machines are being more ex-tensively used in agriculture in the West now, yet it will have to be admitted that there is not the same scope for their use in agriculture as in the manufacturing industries.

(4) *Nature of demand.* Where demand is small and fluctuating it is obviously not worthwhile to instal a machine. A machine is a costly thing, and no manufacturer will instal it, unless he hopes to have large scales and the demand is steady.

(5) *Artistic work.* Works of art must always remain the peculiar domain of the hand-workers. Painting can never be done by machines. Machinery must keep itself out from the field of art.

(6) *Cheap labour.* Where labour is cheap and machinery dear, the producer will be reluctant to spend money on machinery. India is such a country. Here mechanization cannot be adopted on the same scale as it is in the West. The use of labour is more economical than the use of machinery.

WHAT HAVE YOU LEARNT FROM THIS CHAPTER ?

Meaning of Capital. Capital is that part of man's wealth, other than land, which is used in the production of further wealth or which yields an income.

From the individual point of view, capital yields an income and from the social point of view it aids in the production of further wealth. Generally it does both. But sometimes it yields income to the individual without helping in the production of further wealth, *e.g.*, war bonds.

Wealth and Capital. All capital is wealth, but all wealth is not capital ; only wealth used in production is capital.

Wealth and Money. Capital may take the form of money ; it may also exist in some other forms, *e.g.*, machines and raw materials. Similarly money may be capital if it is used in production, and not capital if it is hoarded. Hence all capital is not money, nor is all money capital.

Capital and Income. Capital is a stock ; income a flow. Income is what capital yields.

Are consumers' goods capital ? In the hands of the producers, yes ; in the consumers' hands, opinions differ. Economists, like Benham, regard them as capital even then.

Why is land not capital ? Land is very peculiar. It is limited ; it has no supply price ; it is nature's gift ; it has infinite variations, and it is immobile. Capital is man-made and its supply can be increased.

Importance of Capital. In every stage of economic evolution, capital existed in one form or another. In modern times, it has assumed tremendous importance. No industry can be run without it. The economic prosperity of a country depends on the amount of capital it can command.

Origin and Growth of Capital. It originates in saving or waiting or abstinence. Its accumulation depends on :

(*a*) Power to save and (*b*) Will to save.

(*a*) *The power to save depends on :*

(1) Surplus of production over consumption.
(2) Channels of investment.
(3) Sound system of money,
(4) Sound system of taxation.

(*b*) *The will to save depends on :*

(5) Provision against old age and unforeseen emergencies.
(6) Family affection.
(7) Desire to succeed in business.
(8) Force of habit.
(9) Rate of interest.
(10) Desire to win social and political influence.
(11) Law and order in the country.

Conditions for capital formation are not favourable in India at present,

Forms of Capital. *Fixed Capital, e.g., machines.*

Circulating Capital, e.g., raw materials.

Sunk Capital, that which has become specialised, and cannot be used for any other purpose.

Floating Capital, that which can be put to any use. It is in the form of money.

Working Capital, consists of funds used in running a business.

Functions of Capital :

(1) Supply of raw materials.
(2) Supply of appliances.
(3) Provision of subsistence.
(4) Providing means of transport.

Efficiency of Capital :

(*a*) quality of capital,
(*b*) suitability for the purpose,
(*c*) proper balance between different parts
(*d*) right application,
(*e*) labour efficiency,
(*f*) regular and adequate supply of raw materials, and
(*g*) managerial efficiency or organisation.

Capitalistic Production—uses large amount of capital.
Production is indirect and round-about.

Uses of Machinery *It benefits* :

(1) use of natural forces for man's benefit ;
(2) it can perform tasks too heavy or too delicate for man's hands ;
(3) it works much faster ;
(4) it works much more accurately ;
(5) it relieves strain on human muscles ;
(6) it makes large-scale production possible ;
(7) it makes mobility of labour easy ;
(8) it creates employment ; and
(9) it relieves man of many disagreeable jobs.

Its evils :

(1) It creates unemployment. But this is only its immediate effect : ultimately it creates more work.
(2) It has made work tedious and monotonous.
(3) The skill of the craftsman has deteriorated.
(4) Machine product is not artistic.
(5) It has made man more dependent on others.
(6) Man's power to destroy has increased.
(7) The evils of the factory system.
(8) Too much specialisation has a narrowing influence on worker's mind.
(9) It has created class-conflict.

Limitations on the use of machinery. Machinery has not much scope in the following cases :

(*a*) where individual tastes count,
(*b*) where the material used is exceptionally costly,
(*c*) where operations cannot be reduced to a few mechanical movements,
(*d*) where demand is either small or fluctuating,
(*e*) in works of arts, and
(*f*) where labour is cheap and machinery dear.

CAN YOU ANSWER THE FOLLOWING QUESTIONS ?

1. Mention the various forms of capital and distinguish in particular between fixed capital and circulating capital. [See Sec. 3.] *(U.P. Board, 1958)*

Or,

State what capital is and what its different forms are. *(Gauhati 1953)*
[See Secs. 1 and 3.]

2. Distinguish between (a) capital and wealth ; (b) capital and money ; and (c) capital income.

3. Are the following capital goods ?

(a) (1) Straw in a barn ; (2) Straw in a hat factory ; (3) A straw hat in a hat shop ; (4) A straw hat in your closet.

(b) (1) A fire-cracker in a store ; (2) A fire-cracker in your hand ; (3) A fire-cracker in the air.

Or,

What do you mean by capital ? Are the following capital ?

(a) motor car of a doctor, (b) fountain pen of a student, (c) grain in the store of a contractor ? *(Utkal Inter. Arts 1959)*

[(a) (1) Yes. (2) Yes. (3) Yes. (4) No.
(b) (1) Yes. (2) No. (3) No.]

4. What term will you use in Economics for the following :

(i) Capital that has been so invested in one use that it cannot be put to any other use.

(ii) Capital that finishes up only in one use.

(iii) That part of wealth which is used for further production of wealth.
(P.U. H. S. 1961)

5. How would you distinguish land from capital ?
[See Sec. 2.] *(Delhi 1953)*

Indicate why they should be regarded two separate factors of production rather than as one. *(Utkal Inter. Arts 1958)*

6. What are the factors which influence saving ? Do you think that system of joint family is conducive to saving ? *(Bihar 1953)*

[See Section 5. The joint family system is not conducive to saving because it encourages idleness on the part of the members of the family. All members want to earn the least and spend the most. There is a lot of waste and little saving.]

7. What is capital ? What are the factors which influence the growth of capital in a country ? With a view to overcoming the scarcity of capital in India, what steps would you suggest to encourage savings in the country ?
(J. & K. 1958 ; U.P. 1958)

[See Section 5. Suggestions can be made in the light of factors responsible for capital accumulation in a country. These circumstances should be made as favourable as possible.]

Or,

What are the factors which affect the growth of capital ? How do you account for scarcity of capital in India ?
[See Sec. 5.] *(Rajputana 1945 ; U.P. Board 1953 ; Bombay 1953)*

Or,

Why do people save ? Describe the conditions favourable for the accumulation of capital. [See Secs. 2 and 5.] *(Utkal Inter. Arts 1959)*

8. Define capital. How does capital come into existence ? What are the factors that determine the rate of capital accumulation in a community ?
[See Secs. 2 and 5.] *(J. & K. 1955)*

9. What is capital formation ? Give examples of capital formation taken up under Five-Year Plans. Show the importance of capital formation for economic development.

10. What is capital ? Give its forms and functions.
[See Secs. 2, 3 and 6.] *(P.U. 1959 Suppl.)*

11. If all capital goods were destroyed what would be the effect on (a) workers, (b) entrepreneurs, (c) consumers, and (d) society in general ?

[(a) Workers will have to do heavy and disagreeable jobs. Their output will decrease.

(b) Entrepreneurs will earn less.

(c) Consumers will go without many things, and will pay higher prices.

(d) Society in general will become poor and backward.]

12. What is capital ? What is its importance in the economic life of a nation ? *(P.U. H.S. 1961 ; Delhi H.S. 1961)*

13. Are the following capital goods ? Give reasons in support of your answer.

(a) *Cotton in the godown of a merchant.*

(b) *Cotton in your house.*

(c) *A sewing machine used by a tailor.*

(d) *A sewing machine used by a housewife.*

(e) *A house let out on rent.*

(f) *A fire cracker in a store.*

(g) *Sweets in the shop of Halwai——(are considered, are not considered) as capital.* *(P.U. Pre-Univ. 1961)*

(h) *All capital is wealth but all wealth is not——(fill in the blank)*

14. What is meant by mobility of capital ? What are the factors which hinder the mobility of capital in India ? Suggest remedies. *(U.P. Board 1953)*

15. Distinguish between capital and capitalism. Are you against any of these two ? What is capitalistic production ?

[Capital means aid to wealth-production. Capitalism means private ownership and management of the instruments of production for the benefit of the capitalists. We want capital but not capitalism. For Capitalistic production, see Section 9.]

16. What are the effects of the employment of machinery in the process of production on the labour classes ? *(P.U. 1935)*

[For good effects see Sec. 11. For bad effects see Sec. 12.]

17. Discuss the economic effects of the introduction aud use of machinery. *(Dacca 1943)*
[See Secs. 11 and 12.]

Or,

Discuss with reference to India the main advantages and disadvantages of the use of machinery. *(Utkal Inter. Arts 1959 Suppl. ; P.U, 1957 Suppl. ; Rajasthan Pre-Univ. 1960)*
[See Secs. 11 and 12.]

18. Do you consider the use of machinery in India to be (a) an absolute necessity or superfluous, (b) a blessing or a curse ? *(P.U. 1949)*

[(a) The use of machinery in India is absolutely necessary, otherwise India will remain economically backward for ever. For advantages of machinery see Sec. 11].

(b) Use of machinery is neither a curse nor a pure blessing. It is a mixed blessing. It has both advantages and disadvantages.]
[See Secs. 11 and 12.]

CHAPTER XII

FACTORS OF PRODUCTION (*Contd.*)

Organisation or Enterprise

The man who appears to be doing nothing !

1. **Introduction.** Production is the result of the co-operation of all the four factors. We have studied three of them—land, labour, and capital. Now we shall study the fourth factor which is called *Enterprise* or *Organisation.*

2. **What is Organisation or Enterprise ?** Organisation or Enterprise means to plan a business, to start it, and run it. It means to bring the factors of production together, assign each its proper task, and pay it when the work is done. It implies not only running a business, but also shouldering the loss, if any. The man who undertakes all this work is called an organiser, or, more commonly, an *entrepreneur. Organising* and *risk-taking* are the main functions of the entrepreneur.

What is the difference between a Capitalist and an Entrepreneur ? The capitalist is the owner of capital. He invests capital, and receives interest on it. The business may earn a profit or run at a loss, the capitalist must get his interest. Thus he runs no risk. It is the entrepreneur alone who shoulders the risk. The whole loss, if any, falls on him just as the whole profit, if any, goes into his pocket.

In theory, therefore, the capitalist and the entrepreneur are two different persons. But actually, they may be one and the same person. The entrepreneur usually invests in the business some of his own money. He is thus partly a capitalist too, and earns interest besides his profit, if any. Hence a man may be both a capitalist and an entrepreneur. In modern businesses the two have been differentiated.

3. **Importance of Organisation.** In modern times, business is a very complicated affair. Nation-wide, and even international, influences act on it. Even a small happening in some remote corner of the world might bring it disaster. Owing to such complexities the work of organisation has become very important.

The success of a business depends on sound organisation. It must be carefully planned, and the plan must be properly executed. This is a whole-time job. Somebody must devote all his time and energy to it. Hence the great importance of the work of an organiser.

The three factors—land, labour, and capital—lie scattered. One person has land but no capital ; another has capital but no land. The labour has neither ; he has only his labour to offer. So

all the factors of production lie apart from one another. Somebody must bring them together if production is to go on. This is what the organiser does.

Hence organisation is a very important factor of production. Unless a business is properly organised, it cannot be a success. Only through a proper organisation of business will the other factors of production make their best contribution in the work of production. Otherwise labour may be misdirected or land and capital wasted. Land may be very fertile and labour may be very efficient But if the organiser is inefficient or incapable, the productivity of land and the efficiency of labour will be of no avail.

4. **Functions of an Entrepreneur.** There are several important functions which the entrepreneur performs of which the following are the chief ones :

(1) *Conceiving and Initiating.* It is the entrepreneur who conceives the plan of a business. Either alone or with the help of friends he puts it into execution. He thus gives the business a start.

(2) *Organizing.* Having decided which industry to enter, where to start it, what and how much to produce, and how and where to sell, the entrepreneur must now tackle the practical part of the problem. First of all he must make the necessary financial arrangements. Then he must buy machinery and get it installed ; he must hire labour, and assign them suitable jobs ; he must buy the raw materials and organise each process of manufacture ; and finally, he must make satisfactory arrangements to market the produce.

(3) *Direction and Supervision.* The entrepreneur cannot just stop after organising the business. He has to direct production into the most fruitful channels. He has to supervise every little detail so as to ensure maximum production.

(4) *Control.* The entrepreneur may have some assistants to help him but he must keep the final control of business in his own hands. Being responsible for the birth of the business, he cannot leave its destiny in the hands of anybody else.

(5) *Risk-taking.* The entrepreneur has to take the consequences of his enterprise. He has to pay all the other factors of production in advance. It may be that he is rewarded with a handsome profit, or it may be that he suffers a heavy loss. Whatever the consequences, he must bear them. His is the final responsibility.

In short, an entrepreneur initiates, organises, directs and supervises, controls and undertakes the risk of the business.

5. **Who is an Entrepreneur in a Joint-stock Company ?** In a limited joint-stock company, the shares are usually held by a large number of persons scattered all over the country. If the company fails, the shareholders lose their money. To the extent of the capital invested by him, a shareholder is an entrepreneur. In the industry of today, the number of shareholders is very large. They are supposed to elect from amongst themselves a small number of

directors who conduct the business on their behalf. Shareholders are only sleeping partners. The work of direction is carried on by directors nominated by the managing agents or by the managing agents themselves. In the latter case, the directors are the creatures of the managing agents, their 'yes-men'. Thus the shareholders, who are the real entrepreneurs, have little or no control over the business. In India, the managing agents are the real entrepreneurs. We might say that in big corporations, entrepreneurship is shared by some of the shareholders and the chief executive officers.

6. **Qualities of a Successful Entrepreneur.** We have already said that modern business is a very complicated affair. In order to organise and run it successfully, the entrepreneur must possess qualities of a very high order. The man at the helm of the business must be a really superior person.

The entrepreneur must be a *successful leader of men*. He must win and retain the sympathy of men with whom he has to work. He must inspire confidence in them. He must understand human nature, so that he can make each person do his best.

He must *understand his business*. He has to buy machines ; he has to buy raw materials. He must be an expert in judging the quality of both, if he does not want to be deceived. He must also know the art of marketing.

A successful entrepreneur must have *general knowledge of the world at large*. This is essential not only for the purchase of materials and machinery, but also for the sale of goods.

There are ups and downs in business. He must have the courage to face them. He must take advantage of the favourable opportunity. He will have, therefore, to take bold decisions sometimes. But he must do so cautiously. A single mistake may spell disaster. '*Prudent boldness*' is what is needed.

In short, a successful entrepreneur must be capable and well-informed, a successful leader of men, a keen judge of things, courageous and prudent. Above all, he must be gifted with a large measure of *practical common-sense*. He is a superman. Few entrepreneurs come up to this standard in real life. There are not many Fords, Nuffields, Tatas and Birlas in the world.

WHAT YOU HAVE LEARNT FROM THIS CHAPTER ?

Meaning of Enterprise. It means initiating and organising a business and undertaking all risks. The man who does it is called the *Entrepreneur*.

Difference between a capitalist and an entrepreneur.

The capitalist simply invests his capital and receives a fixed income as interest. He takes no risk.

The entrepreneur organises the business and takes the risk. Actually a businessman may be both an entrepreneur and a capitalist.

Importance of Organisation. Business is a very complicated affair. A specialist is needed to organise it. The factors of production lie scattered, and somebody must bring them together. No business can succeed without sound organisation.

Functions of an Entrepreneur :

(i) He conceives and initiates business.

(ii) He organises production.

(*iii*) He directs and supervises the work.

(*iv*) He controls the business.

(*v*) He bears the risk.

The Entrepreneur in a Joint-stock Company. The directors or managing agents are the entrepreneurs. But they do not supply the whole capital and, therefore, do not take the entire risk. The risk is borne by the shareholders who exercise no control. Thus ownership and control have been split up.

Who can be a Successful Entrepreneur? He must possess the following qualities:

(*i*) Qualities of leadership.

(*ii*) Knowledge of business.

(*iii*) Courage to face bad times.

(*iv*) He should be cautious, and still take bold decisions sometimes.

(*v*) Practical common-sense.

In short, he should be a business genius.

CAN YOU ANSWER THE FOLLOWING QUESTIONS?

1. Why do you regard enterprise or organisation as a separate factor of production?

2. What are the functions of an entrepreneur? Who performs these functions in the case of modern big business corporations and in the case of public enterprises, and with what success? (*P.U. 1960*)

3. What is the nature of the services performed by the entrepreneur and how is he rewarded? [See Sec. 4.] (*C.U. 1943*)

4. Who is an entrepreneur. What is his role in modern large-scale industry? [See Secs. 2 and 4.] (*Bombay 1954*)

5. Define an entrepreneur. What are his functions? Think of your college as a graduate producing factory and name the persons who are entrepreneurs, managers and labourers, etc. (*J. and K. 1960*)

6. Explain the importance of organisation and enterprise in the modern system of production. Do you think there is lack of enterprise in this country? (*Rajputana 1944*)

[See Sec. 3. Yes, there is a lack of enterprise. This is due to the lack of qualities which an entrepreneur should possess. See Sec. 6.]

7. What qualities go to make a successful entrepreneur? Can you mention some persons in India who possess such qualities? Name them.

[See Sec. 6. Some of these names are Tata, Birla, Dalmia, Singhania, etc.]

CHAPTER XIII

FORMS OF BUSINESS ORGANISATION

What do yon like to be—a proprietor, a partner, a shareholder or a co-operator

1. **Introduction**. We have completed the study of the four factors of production—land, labour, capital and organisation. We have studied the various problems which arise in connection with their use in production. Now we propose to discuss the various ways in which business can be organised and run.

In case you want to start a business, what possibilities are open to you ? You may start a business alone, or you may enter into a partnership with a relative or some trusted friends ; or you may become a shareholder in a limited company, or you may become a member of a producers' co-operative society. Besides these, there are some other forms of business too, any one of which you can adopt.

The chief forms of business organisation are : individual enterprise, partnership, joint-stock limited company, monopolies, co-operative business, State concerns and municipal undertakings. We shall discuss these one by one.

2. **Individual Proprietorship**. The common form of business organisation in India is one-man business. In agriculture and retail business, this form is the general rule.

In this type of enterprise, the individual entrepreneur supplies the entire capital (even if he has to borrow) ; he organises and supervises the business ; and he alone is responsible for the results, *i.e.*, gets profit or suffers losses. If necessary he can employ some persons to assist him.

This form of enterprise has certain advantages. The business is generally on a small scale and all the economies of small-scale production are available. The chief advantages may be thus summarised below :—

(*a*) Since the risk is entirely his own, the entrepreneur has the *great incentive for hard work*. He works long and late. Such a hard work must produce results.

(*b*) On account of very close supervision over details, *quality of the goods is superior and the cost per unit is low*. Nobody can waste materials or time or spoil machinery.

(*c*) *The customers are sent away fully satisfied*. This is due to the keen personal interest that the entrepreneur takes in the business. Even a small complaint can be promptly attended to.

(*d*) *Thate employees can be kept happy and contented*. This is due to the intime personal relations that exist between the entre-

preneur and his employees. He is in a position to treat them sympathetically.

(*e*) *Overhead charges are low*, for the staff maintained by the individual entrepreneur is small.

(*f*) *The entrepreneur is his own 'boss'*. He is not to serve another's will. Such a type of business suits capable businessmen of small means.

(*g*) Finally, it is *easy to form such a business and simple to dissolve it*. This is so because the proprietor is the only person concerned.

But the individual entrepreneur has to face many serious difficulties. The following are the *chief shortcomings* of this type of business organisation :—

(*a*) *The resources are limited*. The entrepreneur cannot expand his business to take advantage of increased demand. He is unable to avail of the opportunities of making profits due to lack of funds. His business will generally remain on a small scale.

(*b*) *No division of labour is possible*. The entrepreneur has to look into every aspect of business single-handed, and he may not be able to do it efficiently. All the advantages of division of labour are lost.

(*c*) In spite of all efforts, such a business can yield only a *small income*. The resources are limited. Many profitable ventures are ruled out.

(*d*) The one-man business cannot *compete with a big business*. Its life is, therefore, precarious. Any time its business may be snatched from it.

(*e*) *A country with small business is bound to remain economically backward*. It can never hope to attain industrial or commerical leadership with such a small and primitive organisation. Not to speak of industrial leadership, it cannot even occupy a respectable place among the economically advanced countries of the world.

Conclusion. In spite of these handicaps, the individual enterprise is not likely to disappear. Entrepreneurs of ability do not like to enter into partnership to take up a job in public company. They prefer to run their business independently and be content with small profits. Agricultural and retail stores must remain the sphere of the individual entrepreneur.

3. **Partnership.** Sometimes the one-man business reaches such a stage of development that it becomes too unwieldy for one man to be able to carry on. The original entrepreneur may become too old for work. It would seem essential then to take a younger person into partnership to prevent the firm from decaying. The one-man business thus naturally developes into a partnership.

Partnerships may also be formed to start a new business altogether. Two or more persons combine together to do business. Their mutual relations, their rights, and duties, the capital each is to put in, the proportion in which profits and losses are to be shared are laid down in the partnership deed. The agreement also lays

down the aims of the partnership as well as the manner in which it can be dissolved. The agreement may be verbal or in writing.

From the legal point of view, each partner is a fully authorized agent of the partnership, and every partner has the power to bind the other partners to any agreement that he may enter into. Each partner is responsible for the debts of the firm, not only to the extent of his share in the business, but to the full extent of even his private resources. In other words, the **liability is unlimited.**

Limited partnership. There is also a type of partnership in which one or more partners can get their liability for the partnership debts limited to their share capital or to a fixed proportion of it. This is called a limited partnership. But the liability of all partners cannot be so limited. It is essential that there are some partners whose liability is unlimited. The partners with limited liability can not take active part in business. They are called dormant or **sleeping partners.**

Merits and Demerits of Partnership. A partnership has some obvious advantages over individual proprietorship. The partnership business is small but not too small. It enjoys all the advantages of small-scale business as well as some economies of large-scale business too. They are :

(*i*) *More capital.* It commands large capital resources. As the liability of each partner is unlimited and all partners are jointly and severally responsible for the payment of debts, the creditors feel more secure about the money they may have advanced. Hence it is easier for a partnership to raise funds. They are thus able to do business on a large scale reaping the economies of scale.

(*ii*) *Diverse talent.* Partnership brings about a pooling of skill and ability. Diverse talents are at the service of a partnership, and a certain degree of specialization is possible among the partners. Specialization makes for higher efficiency. A looks after the store, B is in-charge of the office and C runs the factory. This division of labour is quite advantageous.

(*iii*) In a partnership, there is less possibility of error of judgment. A problem is examined from more than one point of view, and the decision arrived at is likely to be sounder than in a one-man business.

(*iv*) *Vigour and zeal.* The partners work with great enthusiasm and vigour. Every partner is supposed to be deeply interested in the business and expected to give it his best.

(*v*) *Prompt decisions.* The partners are in continuous and intimate touch with one another and prompt decisions can be taken. In business, time factor is very important. A partnership can take full advantage of each business current because it can decide on a suitable course of action before it is too late.

(*vi*) *Personal factor.* Partnership can maintain personal relationship with the employees and the customers. This is highly conducive to a good business.

Demerits. A partnership suffers from the following drawbacks :

(*i*) *Unlimited liability.* Since the liability of a partner is unlimited, he can be held liable for the whole debt of the firm, not necessarily his own share. This frightens away the moneyed people. They are reluctant to join those who may have ability but no capital.

Owing to unlimited liability, a partnership follows a timid policy. Each partner is anxious that the partnership should not run big risks and incur heavy liability, for any one of them can be called upon to pay the entire debt of the firm.

(*ii*) *Less work and more waste.* It is generally seen that a partner shirks work. Every partner tries to shift some work on to the other. But he wants to get the utmost out of the business. The partnership fund, being a common fund, is spent by every partner recklessly. Each partner tries to enrich himself at the expense of the firm.

(*iii*) *Mutual dissensions.* Misunderstanding generally arise and the work suffers. Quarrels among the partners are quite common. No partner then pays any serious attention to business.

(*iv*) *No permanence.* The partnership has to be dissolved in case of retirement, death, insolvency or insanity of any partner. There is thus no continuity of life in a partnership.

(*v*) *Money locked up.* A partner is wedded to the partnership for ever. No partner can transfer his interest in the firm to any body else without the *unanimous* consent of the other partners.

(*vi*) *Insufficient funds.* A partnership has generally *insufficient resources* for undertaking any manufacturing or business activity on a large scale. It thus suffers from the disadvantages of small-scale production and is unable to enjoy the economies of large scale.

4. **Joint-stock Company.** The most important type of business organisation today is the joint-stock company. In fact, a business on a respectable scale can be organised only in this manner.

A limited company is organised in this way. An entrepreneur conceives a scheme of business ; he secures the co-operation of at least six more persons, for the minimum number of persons to form a company is seven. They take steps for the formation of the company. They draft a Memorandum of Association which contains the name of the company, the location of the head office, its aims and objects, the amount of share capital, the kind and value of shares, and a declaration that the liability is limited. Articles of Association, containing the rules and regulations of the company, are also drafted. These two documents are submitted to the Registrar of Joint-stock Companies. If the Registrar is satisfied that the requirements of the law have been fulfilled, he issues a certificate of incorporation. The company then comes into existence.

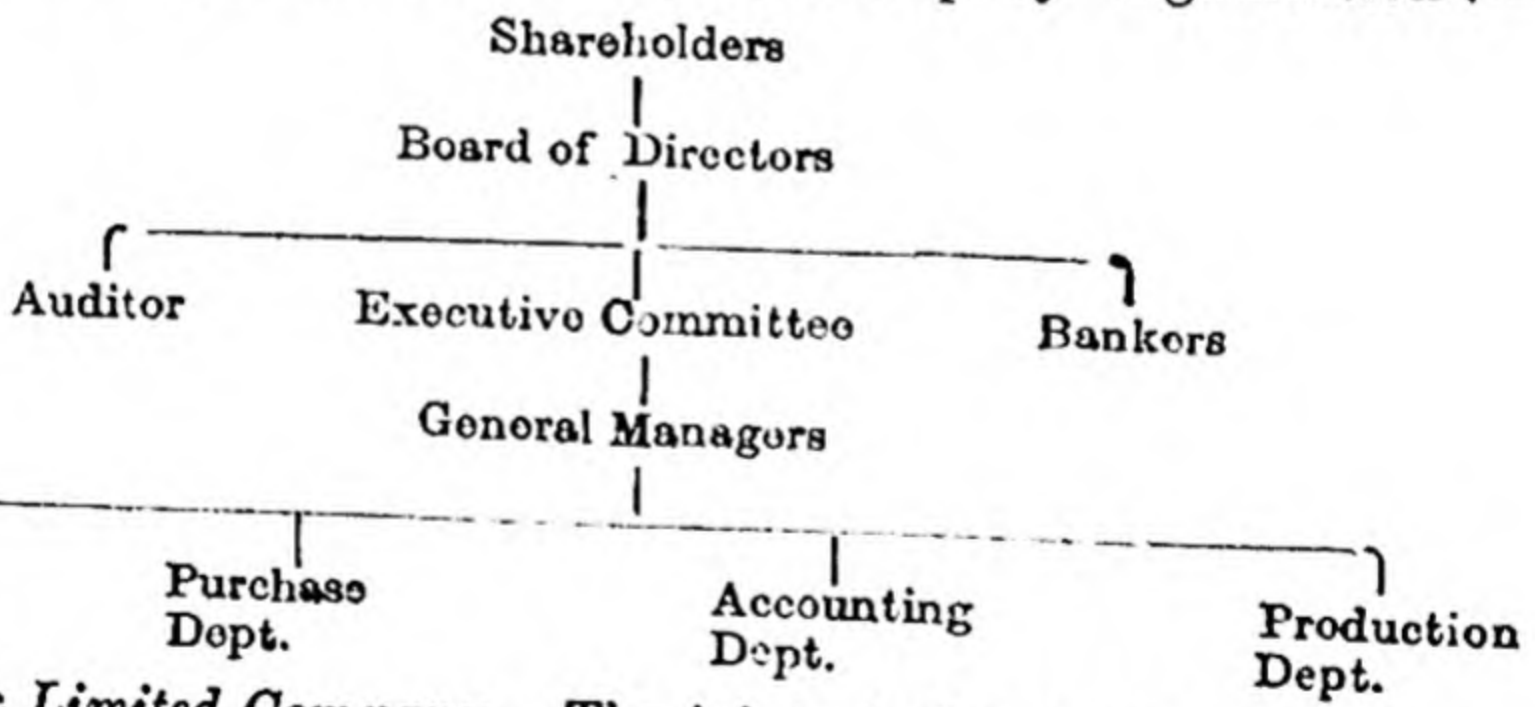
The promoters of the company then canvass for the sale of shares. The shares of several kinds—Perference, Ordinary and Deferred. The preference shareholders have the right to be paid first out of the profits, before anything is paid to the other shareholders. The preference shares may be **cumulative preference shares,** in which case the holders are entitled to receive a fixed dividend even for the years when there is no profit. Their dividend goes on accu-

mulating. Or, they may be **non-cumulative preference shares,** in which case the shareholders will get dividend only for the year when the company has made enough profit to pay them. After the preference shareholders are paid at the fixed rate comes the turn of the **ordinary shares** for getting the dividend. Last of all rank the **deferred shares**. They are generally held by the promoters themselves. They are a few in number. Whatever is left of the total profit, after other types of shareholders have been paid, is distributed among the deferred shareholders, and it may happen to be quite substantial. This device is, therefore, adopted by the promoters of the company to keep to themselves the lion's share of the profits.

Besides raising capital by selling shares, the company may raise funds by the sale of *debentures* or *bonds*. The debenture is a document showing the loan taken by the company. Unlike the shareholders, the debenture-holders do not take any risk. Profit or no profit, they must get their interest. They are the creditors of the company.

The shareholders then elect directors to manage the business on their behalf. The directors have to justify their policies before the shareholders in the annual meeting. If the shareholders are not satisfied, other directors may be elected in their place. The board of directors only lays down the general policy and discusses major issues. The day-to-day business is carried on either by the salaried secretary, manager, managing director, or the managing agents.

The following is the structure of the company organisation :—



Public Limited Company. The joint-stock company may take the form of a public limited company. Such a company has to submit certain statements and the balance sheet to the Registrar of Joint-stock Companies yearly. It can invite the public to buy shares through a prospectus. There is no maximum limit to the number of shareholders ; the minimum limit is seven. Business cannot be started unless the minimum capital laid down has been subscribed.

Private Limited Company. It is free from the necessity of submitting certain returns to the Registrar. But there are certain restrictions. It cannot issue a prospectus. The maximum number of shareholders is limited to 50.

5. **Comparison Between Joint-stock Company and Partnership.** From the above description of a joint-stock company,

we can easily notice some essential features which distinguish it from a partnership.

(*i*) *The number of shareholders in a company is very much larger* than in a partnership. It may run into thousands, and they are scattered throughout the length and breadth of the country, sometimes the world. The number of partners, however, is generally very small and the contact between them is close and continuous.

(*ii*) *The financial resources of a joint-stock company are much larger.* No partnership can collect so much capital. Since the partnership cannot sell shares, it has to depend on its own resources.

(*iii*) *The liability is limited in a company,* whereas it is unlimited in the case of partnership. A partner can be called upon to pay the entire debt of the business ; even his private property can be attached. But a shareholder's liability is limited to his share capital.

(*iv*) *The company is a legal person* and, as such, it can sue and be sued upon. In the partnership, the partner can sue and be sued upon personally, and not in the name of the firm.

(*v*) *The existence of a limited company has a legal sanction.* It is brought into existence according to an Act of the State and works under the supervision of law. The partnership comes into the grip of law only when the law is invoked against it. The partnership can engage in any lawful business. But a company cannot go beyond what has been laid down in the Memorandum of Association.

(*vi*) *A company has a perpetual existence.* The retirement or death of a shareholder or a director cannot bring about the dissolution of a company. But a partnership comes to an end when a partner retires, dies, or if he becomes insane or bankrupt.

(*vii*) *Personal relationship is of no importance* in a company, whereas it is vital in a partnership. This is shown by the fact that a shareholder may sell his shares without the consent of the company. But no partner can transfer his interest in the firm to another person without the consent of all other partners.

(*viii*) In a partnership, the owners themselves manage the business. In fact every partner has a right to take part in business management. But in a company the *shareholders,* who are the owners of the company, *entrust the work of management to a board of directors. Ownership is thus separated from control.*

6. **Advantages of Joint-stock Organisation.** Let us now enumerate the merits of the joint-stock type of organisation.

(*i*) *Economies of large scale.* The large financial resources of the company enable it to undertake business on a scale large enough to enjoy internal and external economies of production. These economies are : use of modern machinery, division of labour, economies in buying and selling, lower overhead charges relating to distribution, publicity and administration, research and experiments, etc.

(*ii*) *Limited liability.* It is great advantage to have the liability limited. The shares are of different kinds and the value of each share is quite low. This attracts all sorts of people, rich and

poor, rash and prudent, to invest their capital. Large funds can thus easily be raised which would not have been possible if the liability were unlimited.

(*iii*) *Share transferable.* A shareholder can sell his shares whenever he likes. He is not tied for life to the fortunes of a company. When he needs money he can get it by selling his shares. Thus the investment is quite convenient.

(*iv*) *Economical administration.* The directors have not to be paid salaries but just a fee for attending the Board meeting. Thus the company can get the advice of people of mature wisdom and ripe experience at a small cost. The administration is, therefore, economical.

(*v*) *Democratic.* The directors can be removed by the shareholders, if they are not found satisfactory. The company is, therefore, a *democratic administration.* It is the will of the general body of the shareholders that is supreme.

(*vi*) *Permanent existence.* The company has a perpetual existence. Any number of shareholders may leave it, but the company continues. It can thus afford to launch enterprises which may reach the stage of profit-earning after a long time.

(*vii*) *Thrift encouraged.* By affording opportunities of investments even to men of small means, the company organisation *encourages thrift and saving.* This type of organisation is a great aid in capital formation.

(*viii*) *Legal control.* The Government exercises control over working of the company. It has to conform to certain legal requirements. The object is to prevent fraud and to protect the interests of the shareholders and the public at large.

(*ix*) *Risks spread out.* This type of organisation enables the individual investor to spread out his risks. Instead of starting a business of his own, he can buy the shares of a number of joint-stock companies. He need not put all his eggs in one basket.

These are some of the advantages associated with joint-stock form of business organisation.

7. **Disadvantages of Joint-stock Organisation.** As against the advantages mentioned obove, there are certain drawbacks too :

(*i*) The limited liability may encourage rash enterprises to be launched. It is only the shareholder's money that is involved and the decisions are taken by the directors. One is tempted to play ducks and drakes with other people's money.

(*ii*) The transferability of shares kills the interest of the shareholders in the company. On account of the indifference of shareholders, the directors are all in all.

(*iii*) It is democratic only in theory. The directors, self-elected at first, manage to get themselves re-elected every time by securing proxies. The shareholders who should have the ultimate authority feel helpless.

(*iv*) The shareholders are exploited by dishonest directors. Frauds are common. This frightens away the prospective investor and capital becomes shy.

(*v*) A company lacks the adaptability and vigour of a partnership. It is a slow-moving machine. Quick decisions are not possible. This form of business organisation is thus more suited to businesses that can be reduced to a routine. When quick decisions are necessary, it is not suitable.

(*vi*) The owners of the company, *i.e.*, the shareholders, have no personal touch with the employees. This impersonal and unsympathetic role results in employees being often exploited in the name of the shareholders. There are often labour troubles.

Weighing advantages and disadvantages, we can say that on the whole a joint-stock company is more desirable and more beneficial. This form of business has come to stay and no country can do without it. First class businesses can be run only in this form.

8. **Monopoly.** A joint-stock company sometimes grows so big that it becomes a monopoly and dominates the whole market. At other times monopolies are consciously created by the producers of a commodity combining together to avoid competition among themselves.

What is Monopoly ? Monopoly means absence of competition, complete or partial. Sometimes a businessman alone, or jointly with others, comes to control the bulk of the supply of a certain commodity. He is in a position to influence the price. In such circumstances, monopoly is said to have come into existence. When a firm has no rival in the field, it constitutes a monopoly. It is the sole supplier of such goods. It can regulate output and is in a position to fix the price of the goods in question. But just as perfect competition is non-existent absolute monopoly is also rare. There is always some competition, actual or potential.

Types of Monopolies. The following are the main types:—

(*a*) *Legal Monopoly.* The monopoly in this case results on a legal right, like a patent or copyright. A manufacturer gives a name to his product and gets it registered. None else can sell a similar article under that name. It is a case of legal monopoly.

(*b*) *Natural Monopoly.* This type of monopoly results from control over some natural resources, or because a certain commodity is to be found in a certain part of the world only. India and Pakistan together have thus got a monopoly of jute, Africa of diamonds, and so on.

(*c*) *Social Monopoly.* This term is used in connection with public utility services like gas, electricity, railways, trams, etc. These are given monopoly rights on social considerations. For example, it is obviously uneconomical, from the social point of view, to have two rival railway companies operating between Delhi and Amritsar.

(*d*) *Voluntary Monopolies.* These monopolies are formed by businessmen voluntarily. They amalgamate their businesses to remove competition from among themselves. Thus they reap mono-

poly profits. In 1936, the A.C.C. (Associated Cement Company) was established by the amalgamation of the existing cement companies in India It is with this type of monopoly that we are mostly concerned in Economics. Such monopolies are called **combines.** These types of combinations are based on the following terms :—

(*i*) They may fix a minimum price and regulate other conditions of sale.

(*ii*) They may reduce or regulate output of the member-companies.

(*iii*) They may divide the market among themselves.

9. **Different Forms of Combinations.** The following chief forms of combinations may be noted :—

(*a*) *Trusts.* In this case there is a complete merger. The companies forming the combination cease to exist, and an entirely new concern under a new name is formed, *e.g.*, A.C.C. in Indian cement industry.

(*b*) *Cartel.* There is no complete fusion in this case. The firms joining the combination keep their separate individual existence. They agree to observe one or more of the terms enumerated in the above section. This combination is temporary, and lasts only so long as it suits the member-firms. It is not permanent like a trust. Indian sugar syndicate was an apt example of this.

(*c*) *Holding company.* When one company buys the majority of the shares of another company in order to control its affairs, it is called a holding company. The company controlled is called a subsidiary company. One holding company may control the policy and production of many subsidiary companies.

In addition to the above, businessmen form rings and pools to attract customers or sell their products at higher rates. Sometimes efforts have been made to *corner* supplies to create an artificial scarcity of some commodity to get extraordinary profit.

10. **Advantages of Combinations.** These combinations are generally joint-stock organisations and conduct business on a very large scale. They thus have all the advantages of the joint-stock company, and also enjoy all the economies of large-scale production. The following advantages may be noted :

(1) Production is carried on in the most modern factories. Out-of-date machinery is scrapped. Hence production costs are low.

(2) There are advantages of specialized labour, buying and selling on a large scale, economy in rent, and low overhead charges.

(3) Large amounts need not be spent on advertisement, for there is no competition. This means a great saving.

(4) A regular supply of the commodity is assured when production is on a large scale. The customers remain satisfied.

(5) The combination can spend large amounts on research and experiments. Discovery of new processes or new materials may bring large profits.

(6) They can put by-products to commercial use. This lowers the cost of production of the principal commodity.

(7) Output can be regulated according to the conditions of the market. Stocks do not accumulate nor is the market starved.

(8) A combination has resources large enough to face bad times. It is, therefore, more stable. It will not collapse on account of losses.

(9) Wasteful and cut-throat competition, which is socially undesirable and economically unnecessary, is avoided. This means a great saving.

These are some of the benefits of a monopoly or a combination.

11. Evils of Combinations. The monopolistic combinations are not without certain evils which are :

(1) The business becomes too large and unwieldy. It cannot take quick decisions.

(2) Free from the fear of competition, the producers become indifferent, and do not try to make improvements. The business stagnates and ultimately goes down.

(3) Rivals are unscrupulously crushed. Unfair methods are used to beat rivals. It is a national loss that entry into business of new people is discouraged.

(4) New entrepreneurs are not allowed to enter the field. The industry is poorer for that.

(5) Introduction of new machinery is put off for they are not willing to throw away their existing machines. This also means delaying improvements.

(6) Customers are treated with discrimination. Some are favoured at the expense of others. This causes irritation and discontent among many.

(7) Customers are exploited by being charged higher prices. This is unfair.

(8) The factors of production are paid less reward than they would have got if there were other entrepreneurs in the field who would require their services. This is unjust.

(9) There is danger of corruption and bribery. The legislators are bribed to get laws passed or modified in their favour. This was the experience of America.

(10) A combination generally suffers from over-capitalization. The capital is not fully covered by tangible assets. The balance sheet is, therefore, misleading.

These are some of the real evils of a monopoly. The people in general do not like the monopolists.

12. Monopoly *versus* Competition. We have discussed above the merits and demerits of monopoly. Monopoly is opposed to competition. Which is the better of the two ? To decide this, we should note the merits and demerits of competition too.

Merits of Competition. (1) The producers remain alert. New methods of production are adopted. Technical progress is speeded up. If there were no competition, producers will become lazy.

(2) When the producers try to undersell one another, the consumers gain. Prices fall and cost of living is lowered.

(3) Better and cheaper products are placed in the market. It is a gain to the country as a whole. Foreign markets can be captured.

(4) There is no danger of unfair methods being adopted and rivals unscrupulously crushed. There is a fair field and no favour. It encourages honest business enterprise and talent.

(5) There is no threat to the integrity of legislators from the bribes offered by big business magnates. It makes for purity of public life and raising its moral tone.

(6) Weak businesses are weeded out. In the struggle for existence there is the survival of the fittest, and the society is better off for this struggle. Industry is improved.

(7) Competition brings about adjustments in the economic sphere. It is really competition which makes the working of capitalist economy possible. If wages are too low, it is believed competition among employers will pull them up. If prices are too high, competition among producers will bring them down. This is the case in every sphere of economic activity. All economic theories are based on the assumption that there is free competition.

It is on such grounds as above that free competition is advocated.

Demerits of Competition. (1) It is wasteful and uneconomic. Where one shop should be enough there are one dozen shops.

(2) Expense on publicity and advertisement is a drain on society. They often misrepresent and mislead the simple-minded consumer.

(3) The doctrine of the survival of the fittest brings human beings down to the level of beasts. In the struggle for existence, often the crooked and the cunning feed on the honest and the simple. Those who survive may not be socially very desirable.

(4) Competition leads to over-production and unemployment. It is competition which is the cause of over-recurring booms and depressions.

(5) Cut-throat competition damages industry without conferring any permanent benefit on society. It results in loss of valuable capital and gives a setback to industry.

Conclusion. The evils of unfettered competition lead to monopoly or combination. It is generally admitted that competition is wasteful and uneconomic. The general tendency in the industrial world has been towards combinations. Now combinations are not regarded injurious, as it is possible to control them. The society is immensely benefited from the resulting economes. It must be noted that the advantages of competition are reaped most when competition is really free, and buyers and sellers are aware of the market conditions.

13. **Co-operative Organisation.** we have studied individual proprietorship, partnership, joint-stock companies and mono

polistic organisation. We now come to another form of business organisation, *viz.*, co-operative enterprise. Co-operation is of two types, namely, (1) Producers' co-operation, and (2) Consumers' co-operation.

Producers' co-operation. In this form of co-operation, the workers wish to be their own masters. The business is owned by them. They elect their own managers and foremen. They are their own employees. The profits, if any, are divided among them all.

The scheme is very attractive. The "accursed" entrepreneur is done away with and the profits, instead of enriching a few individuals, go to the actual workers. Nothing could be more attractive and fairer than this. The workers are supposed to put in very hard work ; there are no strikes or lock-outs. Co-operation is educationally and morally useful. It encourages thrift among the workers and prevents them from being exploited. It teaches them how to run a business and to work in a team spirit.

But co-operative enterprise has proved impracticable. It has generally failed. The members are not able to raise sufficient capital and employ good managers. The workers show lack of discipline. Bickerings are common. The workers have powers, but lack the sense of responsibility. They cannot make success of a business.

Consumers' co-operation. The consumers living in a particular place, or working in an establishment, combine together. Each contributes a small capital. A store is opened in which articles of common use are stocked. Such co-operative stores are found in many colleges in India. Usually goods are sold at market price, and profits distributed among the shareholders.

This form of co-operation has been very successful. The consumers feel deeply interested in their own store and extend to it their unfailing patronage. Not much capital is needed. The management is simple and honorary. There is legal control and inspection which keep these societies straight.

The drawbacks of the consumers' societies are that they cannot finance expanding business. They offer very little selection for the consumers. The honorary office-holders do not take pains. Besides being inefficient they are sometimes dishonest. Still the co-operative stores are very common and fairly successful.

Other forms of co-operation. The principles of co-operation has been given a very extended application. Co-operative societies have been formed for a number of purposes.

Primary co-operative credit societies exist in our villages. They are meant to help the small villagers with loans for useful purposes. The aim of such societies is not merely to supply the monetary needs of the farmers, but also to teach him self-help and thrift. These village societies, when they need more money, are helped with loans from the central co-operative banks in the district towns, which, in their turn, are aided with funds by the State co-operative bank.

Besides such co-operative credit societies in the villages, there are co-operative societies for all sorts of purposes, credit and non-credit, *e.g.*, for running schools and libraries, for killing mosquitoes, for purchasing seeds and cattle, for sale of milk, ghee, fruits, sugar-cane, for consolidation of holdings, and what not. Similar societies are found in urban areas too. The membership of the urban societies is larger, and profits are distributed among the members.

Co-operation can be of great service to an agricultural country where the people are poor and live in villages. The lessons of self-help and thrift, as taught by co-operation, would revolutionize their way of life. The small man's strength lies in uniting with others. The middleman, who eats away his profit, is eliminated through co-operation.

Great emphasis is put on the development of co-operatives in India's Five-Year Plans. It is intended to broad-base Indian economy on a great co-operative commonwealth. Both in agriculture and industry co-operatives are expected to play an important role. According to the Nagpur resolution of the Indian National Congress (1959) service co-operatives are to be created within three years for helping the agriculturists.

14. **State Enterprise.** We finally come to a form of organisation known as State or Municipal enterprise. Here the Government, or a local body like a municipality or a district board, runs a business. This is generally done in the case of public utility services like gas, electricity or water supply, or bus service.

The following *advantages* are claimed for the State enterprise :

(1) Profits go to the Government, and are utilized for the benefit of the society at large. Nation-building departments can be liberally financed from the increased resources.

(2) Purity of the supply is guaranteed. There is no incentive for adulteration for a Government official as there is for a private businessman.

(3) Government has ample funds and can borrow more, if needed, in the money market at low rates. This would lower cost of production.

(4) The best talent is attracted towards Government service. The Government can, therefore, engage a superior staff. The business, therefore, will be run better.

(5) Government enterprise is more amenable to popular control. Things will not, therefore, be allowed to go wrong. Public cannot be exploited for long.

(6) Government can afford to wait long for an enterprise to yield profit. Private enterprise will not be attracted towards these lines. Big business ventures, like iron and steel works, can be launched.

(7) Consumers' interests are properly safeguarded. This is a great gain to the community at large.

Disadvantages : (1) There is the tyranny of the bureaucracy. The petty official behaves like a big boss, and a respectable citizen

receives no courtesy. We in India have a bitter experience of State control in business.

(2) The Government servant has not the same incentive to do his best as a man in private service. In Government service, promotion is by seniority, and not by merit. Why should a Government servant worry his head ?

(3) There is little check on extravagance and inefficiency. The Government has got a long purse to draw upon. Taxes can be increased to cover losses. There are no shareholders to question the directors in the annual meeting.

(4) Frequent transfers of Government officials are harmful to successful enterprise. There is no continuity in policy and the business may be suddenly dislocated.

(5) The Government business is all routine, and there is little initiative. Business of a pioneering type cannot be attempted. Economic progress is, therefore, slow.

In under-developed countries, the public sector (*i.e.*, State enterprise) has to play an increasingly expanding role. It has a special role to play in creating an infra-structure of social overhead capital like means of transport and communications. These projects need huge capital, but since they are not productive in the narrow sense, private enterprise is not attracted to them. But they are of vital importance to the development of the economy. Hence they have to be undertaken by the State. Similar is the case with big enterprises like iron and steel works, ferlitizer factories, machine tool factories, etc. Hence State enterprise assumes special importance in an under-developed or developing economy. In India according to industrial policy first enunciated in 1948 and later restated in 1956, a number of industries are exclusively reserved for the public sector. Even in the sphere reserved for the private sector, the State can step in if the private sector is not showing sufficient progress as required by the country's needs. There is also a wide field in which both private and public sector can start enterprises. This policy is being given effect to by the Indian Five-Year-Plans.

WHAT YOU HAVE LEARNT FROM THIS CHAPTER ?

Different Forms of Business Organisation:

(1) Individual proprietorship.
(2) Partnership.
(3) Joint-stock companies.
(4) Monopolies.
(5) Co-operative enterprise.
(6) Government and Municipal enterprise.

Individual Proprietorship. It is one-man business, He supplies the capital, carries on the business by himself and takes the entire risk.

Its merits :

(*i*) Great incentive for hard work.
(*ii*) Close supervision means good quality at low costs.
(*iii*) Customers fully satisfied.
(*iv*) Employees kept contented.
(*v*) Low overhead charges.

(*vi*) He is his own boss.

(*vii*) It is easy to start and wind up this business.

Its demerits :

(*i*) Limited financial resources.

(*ii*) No scope for specialisation.

(*iii*) Small income.

(*iv*) Its existence is precarious in face of competition from big business.

(*v*) A small business means economic backwardness.

Conclusion. Although the trend for modern businesses is to be carried on a large scale, yet this form of organisation is not likely to disappear. In agriculture and retail business, it must remain. The entrepreneur likes to be his own boss.

Partnership. Two or more persons combine their capital and abilities. The partnership deed lays down their respective rights and duties. The liability is unlimited.

Limited partnership is one in which a partner can get his liability limited. But all partners cannot do that. Some partners must have unlimited liability. The partner with limited liability is called a *sleeping partner*. He cannot take any active part in the business.

Merits of Partnership

(*i*) Larger capital than thei ndividual entrepreneur.

(*ii*) Diversified ability.

(*iii*) Vigour and zeal.

(*iv*) Prompt decisions possible.

(*v*) Personal relations with the customers and the employees.

Demerits of Partnership :

(*i*) Unlimited liability.

(*ii*) Less work and more waste.

(*iii*) Mutual dissensions.

(*iv*) Partnership has a short life. It comes to an end on retirement or bankruptcy or insanity of partner.

(*v*) No partner can leave business without the other partners' consent.

(*vi*) Insufficient capital.

Joint-stock Company. A least seven men have to apply for registration as a joint-stock company. They form the company, sell shares—ordinary, cumulative preference or non-cumulative preference, and deferred shares. They also sell debentures or bonds. The directors elected by the shareholders carry on the business.

Public Limited Company. No maximum limit to the number of shareholders ; the minimum is seven. Some statements have to be submitted to the Registrar. Business cannot be started unless a minimum capital has been subscribed.

Private Limited Company. The number of members ranges between 2 and 50. It need not submit returns to the Registrar. There are no restrictions on starting business, but it cannot issue a prospectus or invite the public to buy shares.

Contrast Between Joint-stock Company and Partnership :

(*i*) Number of participants in business is larger in a company than in partnership.

(*ii*) A company has larger financial resources than a partnership.

(*iii*) In a company the liability is limited ; but in partnership it is unlimited.

(*iv*) The company is a legal person apart from the shareholders. A partnership has no existence apart from the partners.

(*v*) A company must work within the aims and objects laid down in the memorandum ; a partnership is free to do any business which is not illegal.

(*vi*) A company has a perpetual existence ; but partnership is short-lived.

(*vii*) A partner cannot leave the partnership without the consent of the other partners ; a shareholder can sell his shares whenever he likes.

(*viii*) The partnership is managed by owners, the company is managed by the salaried employees.

Advantages of Joint-stock Organisation :

(*i*) Economies of large-scale production, both internal and external.

(*ii*) Large funds can be raised as liability is limited. The shares are of different kinds and they are transferable.

(*iii*) The shareholder is not tied to the business for ever.

(*iv*) Management is economical as the directors charge a small fee for attending a meeting of the board.

(*v*) It is democratic as the undesirable directors may not be re-elected.

(*vi*) It can afford to invest money where profits will come after a long time ; having perpetual existence it can wait.

(*vii*) It encourages thrift and saving by opening avenues for investment.

(*viii*) The legal control of the Government minimizes chances of fraud.

(*ix*) The investors can spread out the risks.

Disadvantages of Joint-stock Organisation :

(*i*) The liability being limited, rash schemes may be launched.

(*ii*) The shares being transferable, the shareholders become indifferent.

(*iii*) It is democratic only in name for shareholders actually find it difficult to remove the directors.

(*iv*) Dishonest directors exploit the shareholders.

(*v*) The company lacks adaptability.

(*vi*) No personal touch with the employees.

Monopolies. Monopoly implies absence of competition, partial or complete.

Kinds of Monopolies :

(*a*) *Legal monopolies, e.g.,* patents and copyrights.

(*b*) *Natural monopolies, e.g.,* jute in Bengal.

(*c*) *Social monopolies, e.g.,* gas, electricity, railways, etc.

(*d*) *Voluntary monopolies, e.g.,* trusts and cartels.

Methods of Combinations :

(*i*) To fix minimum price and terms of sale.

(*ii*) To reduce or regulate output.

(*iii*) To divide markets.

Different Forms of Combinations. *Trust.* Complete unification of some concerns under one name.

Cartel—Agreement for a special purpose ; no complete amalgamation.

Corner—Attempt at controlling the entire existing stock.

Ring—Combination of shipping companies.

Pool—Agreement to dispose of the available supply at fixed prices.

Holding Company—A Company which acquires control over another concern by buying a bare majority of its shares.

Advantages of Combinations :

(*i*) Production concentrated in the best equipped works.

(*ii*) Economies of large-scale production.

(*iii*) Saving of advertisement cost.

(*iv*) Regular supply of commodity assured.

(*v*) Large amounts can be spent on research and experiments.

(*vi*) By-products utilized.

(*vii*) Output adjusted to demand.

(*viii*) A combination can face bad times.
(*ix*) Wasteful and cut-throat competition avoided.

Evils of Combinations :

(*i*) Business too large and unwieldy.
(*ii*) Producers become lethargic as competition is absent.
(*iii*) Unfair methods adopted to crush rivals.
(*iv*) New entrepreneurs discouraged from entering buisness.
(*v*) Inventions and technical progress held up.
(*vi*) Some customers favoured at the expense of others.
(*vii*) Consumers are exploited.
(*viii*) Factors of production get lower remuneration.
(*ix*) Dangers of corruption.
(*x*) Over-capitalisation.

Merits of Competition :

(*i*) The producers remain alert ; technical progress accelerated.
(*ii*) The consumers gain, as competition lowers prices.
(*iii*) Better products are placed in the market by rival producers.
(*iv*) No danger of unfair methods.
(*v*) No danger of corruption.
(*vi*) Weak business weeded out.
(*vii*) Competition is an instrument of economic adjustments.

Demerits of Competition :

(*i*) It is wasteful.
(*ii*) Cost of advertisement is an unnecessary drain on society.
(*iii*) The doctrine of survival of the fittest is socially undesirable.
(*iv*) Tendency to over-production and depression.
(*v*) Cut-throat competition may damage an industry without conferring any permanent benefit on society.

Co-operative Enterprise :

These are of two types :

(*i*) Producers' co-operation ; and
(*ii*) Consumers' co-operation.

Producers' co-operation. Workers own the factory. They elect their own managers and foremen.

Advantages :

(*i*) Workers have great incentive to work hard.
(*ii*) No strikes or lock-outs.
(*iii*) Educative and morally beneficial.
(*iv*) It encourages thrift among the workers.
(*v*) It ends exploitation of the workers.

Its shortcomings :

(*i*) Inadequate capital.
(*ii*) Inefficient management.
(*iii*) Lack of discipline.
(*iv*) Quarrels of bickerings.
(*v*) Divorce between power and responsibility.

Consumers' co-operation. It means a consumers' co-operative store or supply society.

Its merits :

(*i*) Sure patronage of the members.
(*ii*) Large capital is not needed.
(*iii*) Management is simple and honorary.

(*iv*) Legal control and inspection.

Its shortcomings :

(*i*) Power centred in a few hands.

(*ii*) Capital is insufficient for expanding business.

(*iii*) Little selection for the consumers.

(*iv*) Management being honorary is not sufficiently painstaking.

(*v*) Inefficiency and dishonesty of management.

Other forms of co-operation :

(*i*) Agricultural credit societies and non-credit societies in villages, and

(*ii*) in urban areas.

State Enterprise :

These are Government undertakings.

Advantages :

(*i*) Profits spent for the benefit of the society.

(*ii*) Purity of supply is guaranteed.

(*iii*) Financial resources are large.

(*iv*) The Government can secure the best talent.

(*v*) More amenable to popular control.

(*vi*) The Government can wait long for profits.

(*vii*) Consumers' interests are properly safeguarded.

Disadvantages :

(*i*) Tyranny of the bureaucracy.

(*ii*) Government servants have not much incentive to do their best.

(*iii*) There is little check on extravagance and in efficiency. The Government has not got to face shareholders.

(*iv*) Frequent transfers are harmful to successful business.

(*v*) There is little initiative ; it is all routine.

The public sector (*i.e.*, the State enterprise) is playing a leading role in the under-developed countries.

CAN YOU ANSWER THESE QUESTIONS ?

1. *Describe the different types of business enterprises prevailing in India, and state which type of enterprise is the most prominent in your State.* (*Gauhati 1953 ; P.U. 1955*)

[Mention all types given in the Chapter. See Section 1.]

2. *Consider the advantages and disadvantages of the following types of business organisation* :

(*a*) *Private firm*, (*b*) *private partnership*, (*c*) *joint-stock company*, *and* (*d*) *co-operative producers' society.* (*Delhi 1935*)

[Mention in a summary way the advantages and disadvantages of each type devoting about a paragraph to each.] [See Secs. 2, 3, 6, 7 and 13.]

3. *Name the different forms of business organisation. Point out the source of strength and of weakness in a joint-stock company.* (*Calcutta 1955*)

[Mention all types and see Secs. 6 and 7.]

4. *What is partnership ? Distinguish it carefully from a joint-stock company. How is a joint-stock company formed ?* [See Secs. 3, 4 and 5.] (*P.U. Pre-Univ. 1961*)

Or,

Describe the main features of a Joint-Stock Company. How does it differ from partnership business ? [See Secs. 3, 4 and 5.] (*Bihar 1956*)

5. *How does the joint-stock company raise its capital ? Indicate the advantages of this type of organisation.* [See Secs. 4 and 6.] (*Delhi 1955*)

6. *What are the economic characteristics of Joint-Stock Companies ? Why have they become dominant form of business organisation in advanced capitalist countries ? Why do they need to be controlled ?* (*P.U. Inter. 1961*

7. What do you understand by Limited Libility ? What advantages does a joint-stock company get from limited liability ? (*Utkal Inter. Arts 1960 Suppl.*)

8. What is partnership ? Distinguish it clearly from a joint-stock company. How is a joint-stock company formed ? What are the merits and drawbacks of such a form of business organisation ? [See Secs. 3, 6 and 7.] (*J. & K. 1955*)

9. Describe the various forms of combinations among producers. [See Sec. 9] (*C.U. 1927*)

10. Briefly mention the advantages and disadvantages of monopolies or combination. [See Secs. 10 and 11.]

11. What are the advantages of monopoly ? Is it in any way harmful to the community ? [See Secs. 10 and 11.] (*Delhi H.S. 1958*)

12. Discuss the merits and demerits of competition in the economic sphere. [See Sec. 12.] (*C.U. 1938*)

13. What are the principles of co-operative credit ? (*P.U. 1940*)

[It is democratic ; management is honorary ; it is based on the principle of mutual help and self-reliance. "Each for all and all for each." It is valued for its educative and normal advantages. Also give a brief outline of producers' and consumers' co-operation.] [See Sec. 13.]

14. Distinguish carefully between a joint-stock company and a co-operative society. [See Secs. 9 and 13.] (*Delhi H.S. 1960 ; Delhi Prep. 1962*)

15. Describe the features of the co-operative form of business organisation and discuss its advantages. (*Utkal Inter. Arts 1959 Suppl.*)

16. Briefly describe the system of co-operative production and account for its poor progress. [See Sec. 13.]

17. What do you know about a co-operative store ? What are the types of advantages that accrue to its members ? Illustrate your answer from the working of any store that you know. [See Sec. 13.] (*P.U. 1948*)

18. Account for the increasing scope of State undertakings, and indicate their advantages and drawbacks. [See Sec. 14]

CHAPTER XIV

THEORY OF PRODUCTION

Costs and Returns

1. **Introduction.** Having studied the factors of production and the forms of entrepreneurial organisation, we are now in a position to study the theory of production. In the theory of production, we shall discuss how the entrepreneur combines the various factors of production in the productive process and how the combination of factors produces different results in different industries. This gives rise to the different laws of returns. First, the Production Function.

2. **Production Function.** In real life an entrepreneur wants to know how much of the various production factors, also called 'inputs' (*i.e.*, land, labour and capital) will be required to produce a unit of a commodity in a given time. He also likes to estimate the probable cost of production per unit. His study will indicate varieties of productive resources and their possible combinations. Much depends on the state of technical knowledge, size of the firm and the nature of its organisation, relative prices of the factors of production, etc. Production function is concerned with the physical aspects of production. It can be expressed as under :—

$$P = f(a, b, c, d.....)$$

P is production, F is function and $a, b, c, d.....$ are the factors of production which are used in producing a quantity of the commodity. Each firm seeks a combination which gives the minimum average cost and the maximum aggregate profit.

3. **Laws of Production.** We can study the effect on costs and returns of the expansion of an industry. As industry expands, in some cases the return per unit of labour and capital diminishes, in other cases it increases and in still other cases it remains the same as before, Corresponding to these three situations there are three laws of returns, *i.e.*, the Law of Diminishing Returns, the Law of Increasing Returns and the Law of Constant Returns. We shall discuss them one by one.

4. **Law of Diminishing Returns.** Every farmer knows by experience that generally if a particular piece of land is cultivated over and over again, it yields less than proportionate return. If every year more, and still more, units of labour and capital are put into it, the successive return per unit does not increase, but actually decreases.

Dr. Marshall states the law thus :

"An increase in the capital and labour applied in the cultivation of land causes *in general* a less than proportionate increase in the amount of the produce raised, unless it happens to coincide with an improvement in the art of agriculture."

Suppose there is a farmer who cultivates a small farm. He applies some capital and labour to his farm in certain fixed quan-

tities, which we call "doses". Suppose each dose of capital and labour costs him Rs. 25 and the return to each dose is as follows :—

1	2	3
Dose Applied	*Margnial Return in maunds*	*Total Return in maunds*
1	12	12
2	10	22
3	8	30
4	5	35
5	5	40
6	...	40
7	−5	35

It appears that as more doses are applied, the *marginal return* (*i.e., the additional return*) goes on decreasing. The second dose adds 10 maunds, the third 8 maunds, the fourth 5 maunds, and so on (*see* column 2).

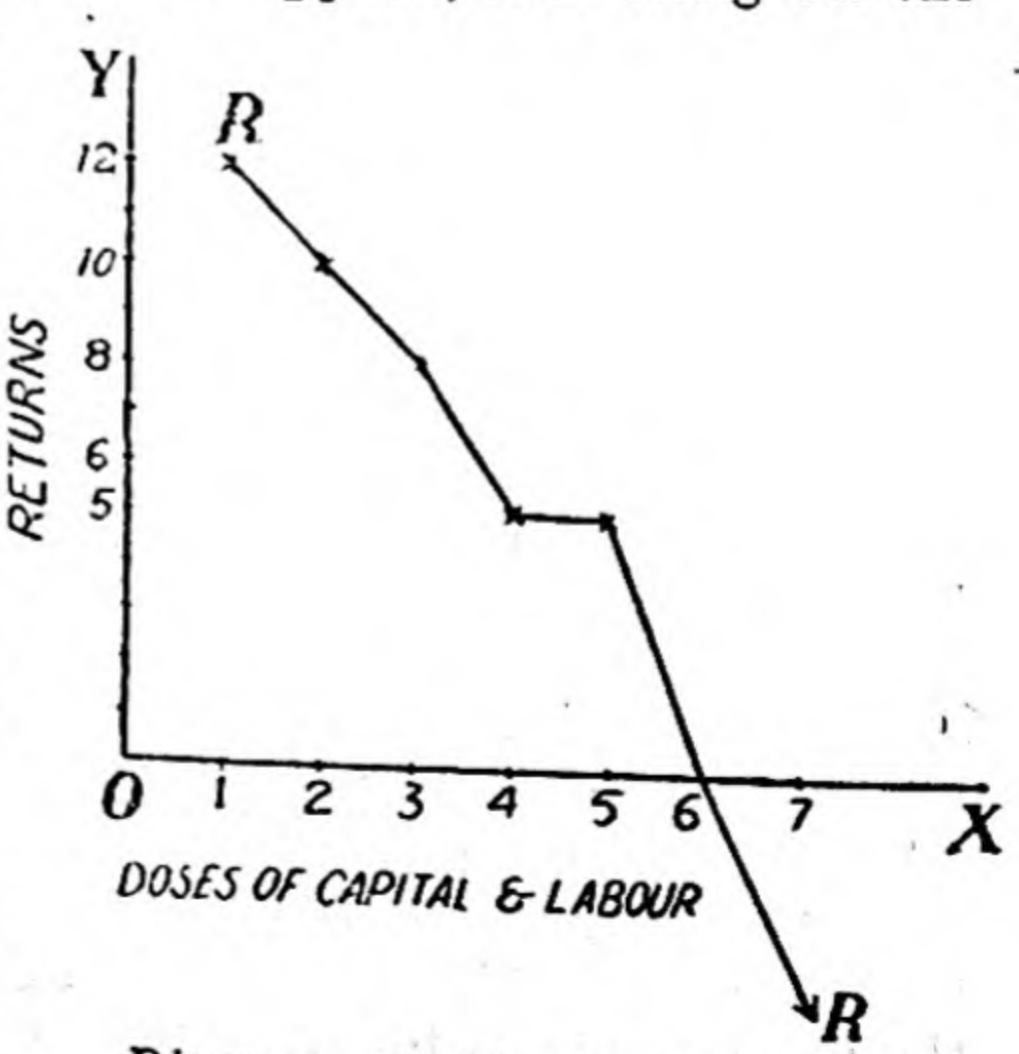
The total return no doubt goes on increasing, but it should be carefully noted that it does not increase proportionately. For example, when the first dose of Rs. 25 is applied, the yield is 12 maunds and when two doses are applied, the total return is 22 maunds and not 24. It does not become double, because the yield of the second dose is not equal to that of the first. The increase is less than proportionate. We can say that the *total return increases but at a diminishing rate.*

We may also notice that even the total return begins decreasing at a certain stage. The stage of diminishing returns in the case of total return, however, comes much later, and if the farmer is prudent, it may never come. The 6th dose makes no addition to the total, and the 7th even decreases it. It seems that at this stage too many men or too much manure has been applied so that, instead of doing any good, they have done harm.

The above illustration can be represented diagrammatically as follows :

Along OX are represented doses applied, and along OY the marginal returns corresponding to each dose. As more and more doses are applied, the marginal return falls. Hence the curve slopes downwards from left to right. At the 5th dose, the marginal return is stationary, at the 6th it is zero, and at the 7th it is negative.

The law of diminishing returns can also be called the law of increasing cost. When increased investment of labour and capital results in less and less production, it means that the cost of production per unit goes up as industry is expanded. This is the law of increasing cost.



Diagrammatic Representation of Diminishing Returns.

5. **Limitations of the Law of Diminishing Returns.** In Dr. Marshall's statement of the law given above, the phrase '*in general*' is significant. It means that the law applies *generally*, but may not apply always. The following exceptions may be noted :—

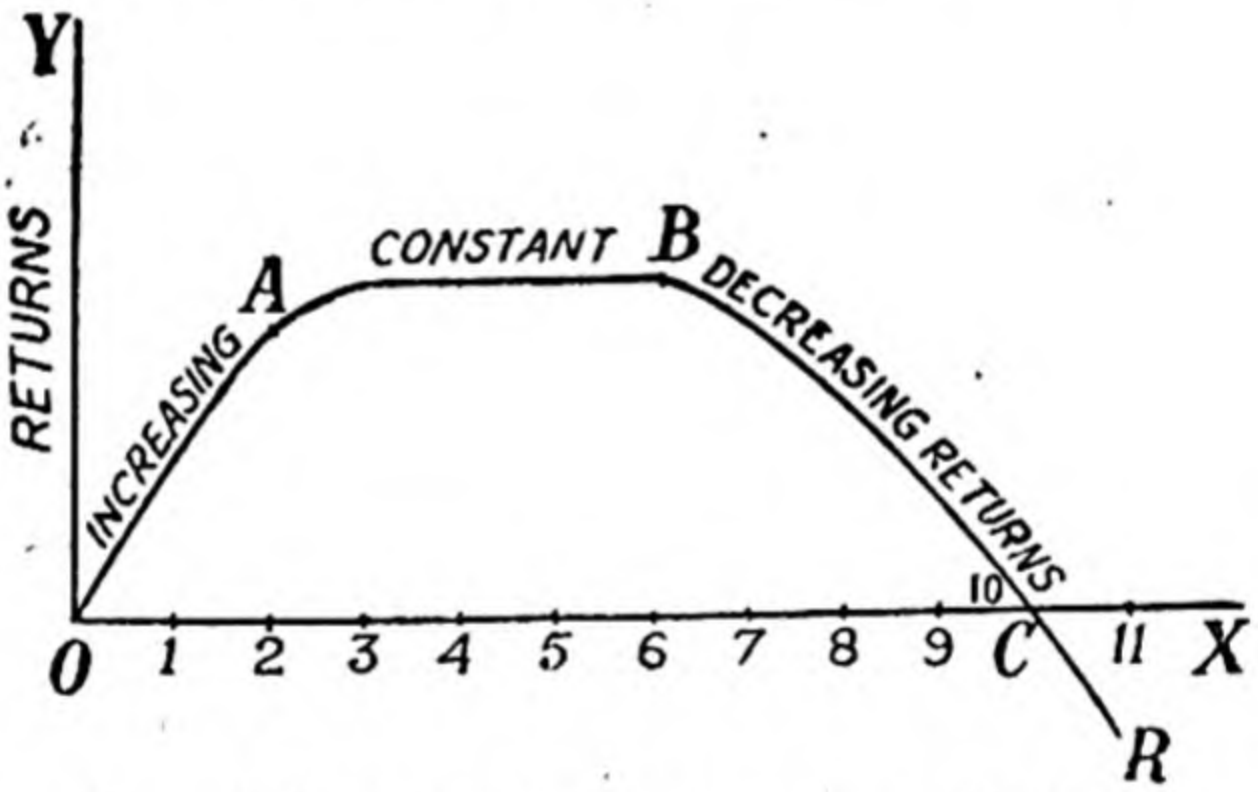
(1) New land, just brought under cultivation, will go on improving with the application of labour and capital. Thus for a few years in the beginning, the returns will be more than proportionate. The marginal returns will increase instead of decreasing in the beginning.

(2) Sometimes the capital applied to land may have been insufficient. For some time, therefore, increased application of capital may bring in more than proportionate returns. In this case also, the marginal return will go up at first instead of going down.

(3) If improved methods of cultivation are applied, then, too, the marginal return will increase instead of diminishing.

But these are only temporary checks ; ultimately the law must operate.

When different laws of returns are found to operate at different times, the figure will be shown as below :—



Doses of Capital and Labour on acres of land.

6. **Law of Diminishing Returns in the Intensive and Extensive Forms.** We have already seen what intensive cultivation and extensive cultivation mean. The law of diminishing returns operates in both cases. If more and more labour and capital are applied to the same piece of land, the return per dose diminishes after some time. Thus the law applies to intensive cultivation.

But if, on the other hand, the farmer brings more and more land under cultivation, even then the returns will decrease. It is so either, because the new land is inferior (otherwise it would have been cultivated first), or because it is farther away, and the cost of transport increases the cost of production. Thus the law also applies where cultivation is carried on extensively.

The diagram on the previous page represents the law in the intensive form. But the same diagram can be made to represent the extensive form too, if instead of the doses being measured along OX, we measure acres of land.

7. Application of the Law of Diminishing Returns. We have discussed the law of diminishing returns with reference to agriculture. But its application is not confined to agriculture alone. It applies equally to other extractive industries like fishing, mining and quarrying. It begins operating even in manufactures, if they are expanded beyond the optimum point.

Dr. Marshall has pointed out that the *part which nature plays conforms to diminishing returns and the part which man plays brings in increasing returns.* It is argued that nature is supreme in agriculture, whereas man dominates in manufacturing industries. The inference is drawn that in agriculture man's ingenuity is held in check by nature, and he feels helpless. It manufactures, however, man is free to organise business, and introduce new economies undisturbed by nature. The work in the factories can go on continuously and nature cannot interfere. Man is the master. Hence there are increasing returns.

Broadly speaking, this is true. The law of diminishing returns operates in agriculture and that of increasing returns in manufactures generally. But from the limitations of the law of diminishing returns, we have seen that even in agriculture, under certain circumstances, the law of increasing returns may operate. In the same manner, the law of increasing returns does not always operate in industry. If the industry is extended beyond the optimum point, the returns will diminish instead of increasing. Hence this statement is not *always* true.

Correctly speaking, increasing and diminishing returns are two aspects of one and the same law. They apply both to agriculture and industry only at different stages.

8. Why the Law of Diminishing Returns Operates in Agriculture. There are several reasons why the law of diminishing returns applies more generally to agriculture. They are :

(1) Agriculture is largely under natural influences like climate, rainfall and weather conditions. The best human efforts may be neutralized by adverse natural influences.

(2) There is a very limited scope for the use of machinery in agriculture. Thus economies which result from the use of specialised machinery cannot be secured here.

(3) The scope for division of labour is also limited. Hence the advantages of division of labour are lost and diminishing returns set in.

(4) Agricultural operations are spread over a very large area and supervision is difficult. This reduces the yield.

(5) Agricultural labour is in a state of enforced idleness for a part of the year. The work is of intermittent nature. This adds to the cost.

(6) Soil gets exhausted after some time and yields less and less. This leads to the operation of the law of diminishing returns.

(7) All lands are not equally fertile. If cultivation is extended to inferior lands, the returns per acre must decrease. This will mean diminishing returns.

Agricultural yields are poorer in India than in other countries because rainfall is uncertain, methods of cultivation are inefficient, and the peasants are too poor to invest capital in land. Irrigation facilities are also inadequate. Hence the law of diminishiug returns applies to Indian agriculture with a special force. Until and unless these defects are remedied, the agrioultural yield in India will not compare favourably with that of other countries.

9. **Law of Diminishing Returns in a General Form.** We have discussed the law of diminishing returns with reference to agriculture. But the law is not peculiar to agriculture. It applies to industry, too, under certain circumstances. Dr. Marshall's statement of the law (given in Section 4) relates to agriculture only. But economists now give the law a much wider application.

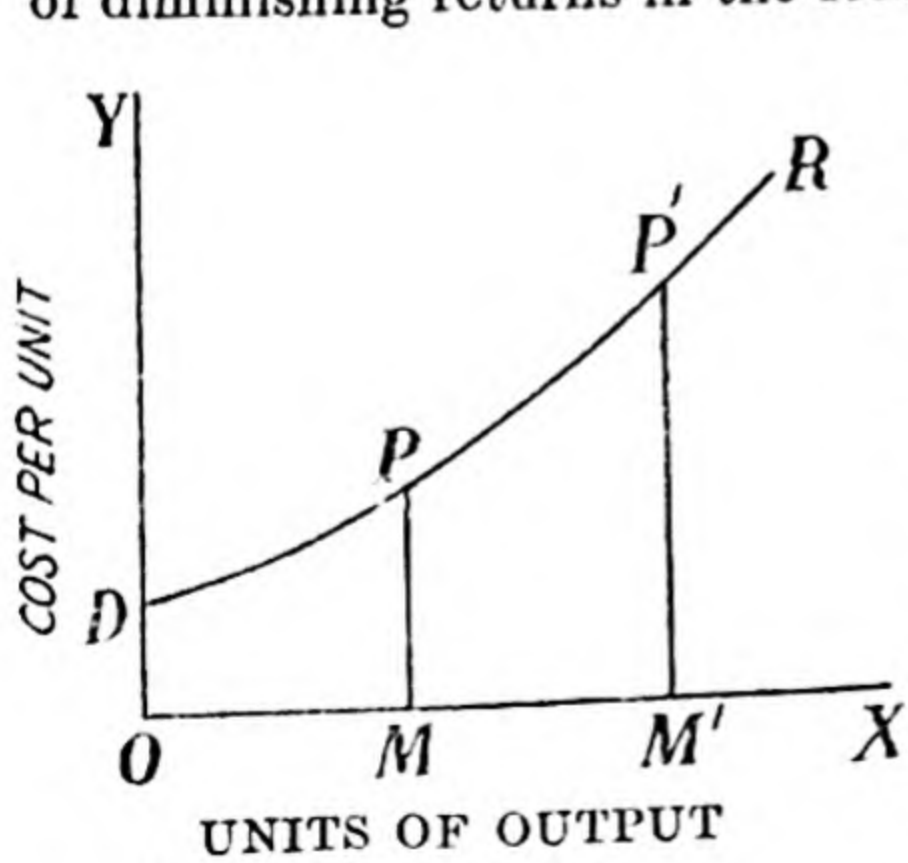
The law operates wherever the supply of an essential factor of production is limited. If an essential factor is so scarce that either its additional supplies cannot be had at all, or only inferior ones are obtainable, the law of diminishing returns must operate. We require all sorts of factors for production. If we can obtain some, and cannot obtain others, the proportion in which we combine the factors becomes defective, and the returns begin diminishing. Thus diminishing returns result out of a defective or an unbalanced combination of factors of production.

Another way of putting the same thing is this : *If variable factors are combined with a fixed factor, the return for the factors increased will diminish.* Benham states the law thus :

"As the proportion of one factor in a combination of factors is increased *after a point*, **the marginal and average product of that factor will diminish."**

Stated thus, the law is applicable not only to agriculture but also operates wherever the above conditions are found to exist. The phrase "*after a point*" may be carefully noted. In the beginning the return may increase but after a point it will diminish.

The following diagram is usually drawn to illustrate the law of diminishing returns in the form of increasing costs :—



Units of output are measured along OX and costs along OY.

As more is produced, the cost increases. For instance, when OM is produced, the cost is PM and when more (*i.e.*, OM') is produced the cost rises to P'M'.

10. **Importance of the Law of Diminishing Returns in Economic Theory.** This law is one of the most fundamental laws of Economics. It lies at the root of almost all economic discussions.

In particular the Malthusian theory of population is based on it. Food supply does not keep pace with the increase in population

simply because agriculture is subject to the law of diminishing returns. If agricultural yield could be increased proportionately, even one acre could, theorotically speaking, produce enough food for the whole world. There would then have been no Malthus to propound his theory of population.

The Ricardian theory of rent is also based on it. Not only do the superior lands yield a surplus, but also the earlier doses of labour and capital yield higher returns than the later ones. This surplus is called economic rent, and is due to the operation of the law of diminishing returns, both in the intensive and extensive forms.

The marginal productivity theory of distribution also assumes that further application of the units of factors of production is subject to the law of diminishing returns. Hence this law applies not only in production but also in distribution.

Thus the law of diminishing returns has a very wide application in economic theory.

11. **Law of Increasing Returns.** The law of increasing returns is the opposite of the law of decreasing returns. Where the law of diminishing returns operates, every additional investment of capital and labour yields less than proportionate returns. But, in the case of the law of increasing returns, the return is more than proportionate.

The law can be expressed in terms of costs too. Increasing returns mean lower costs per unit, just as diminishing returns mean higher costs. Thus the law of increasing returns signifies that cost per unit of the marginal or additional output falls with the expansion of an industry. As more and more units of the commodity are produced, the cost per unit goes on steadily falling.

While discussing the law of diminishing returns, it was stated that the law operated because of the dearth or scarcity of one or more essential factors of production. Some factors cannot be increased while other factors are increased. The result is a defective combination of factors. There are, however, some industries where all factors required are available at any moment and in any amouut. Hence, whenever a combination of the factors becomes unbalanced, it can be set right. As a consequence, the law of increasing returns will operate in them instead of the law of diminishing returns.

The law of increasing returns operates only up to the optimum point, *i.e.*, the point of maximum return. As a business expands and moves towards the optimum the return per unit goes on increasing, *i.e.*, the cost of production is falling. If the business is expanded beyond the optimum point, the profits will begin to decline, and the law of diminishing returns begins to operate. The law of increasing returns may then be stated as under :

"As the proportion of one factor in a combination of factors is increased, *up to a point*, the marginal product of the factor will increase. The phrase *'up to a point'* may be carefully noted.. The increasing return will be only up to a point. Later, the return may diminish."

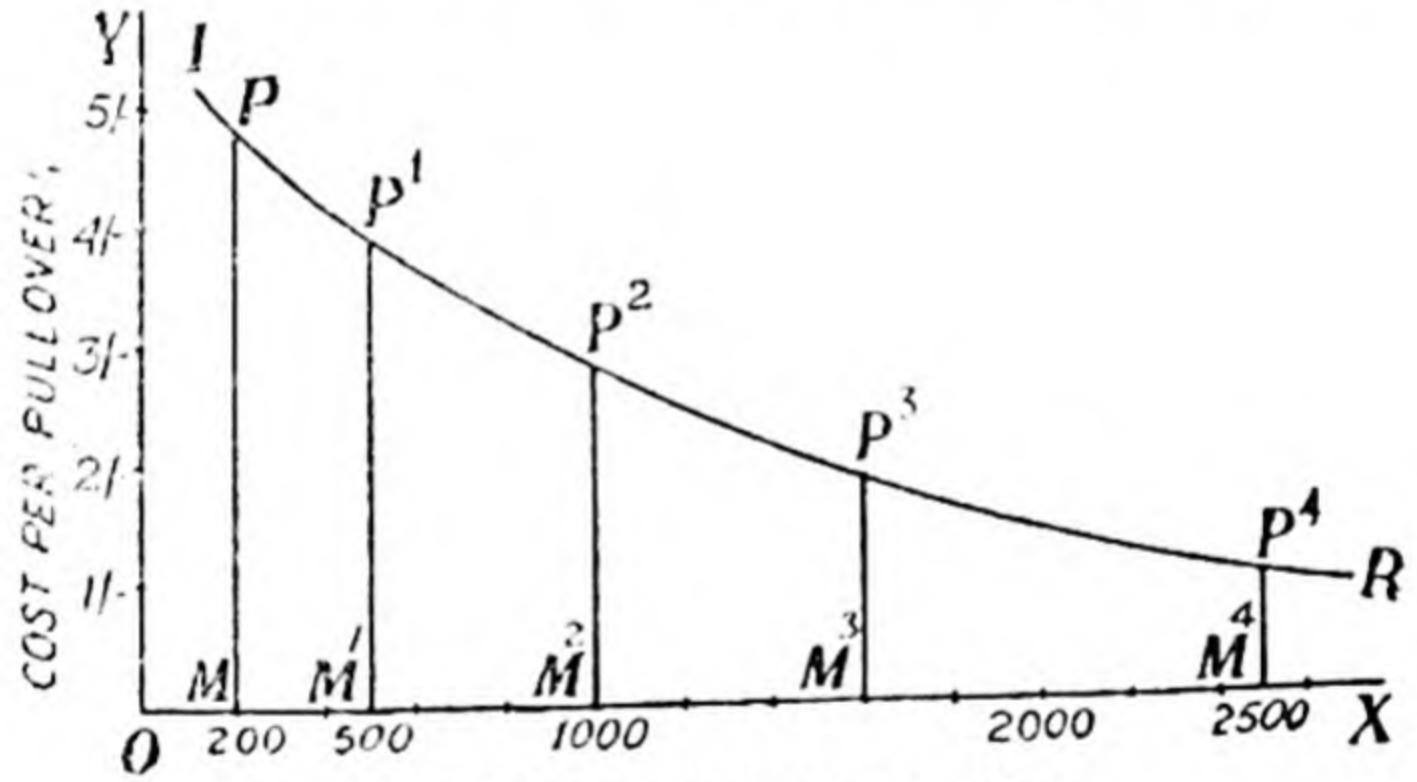
Suppose a hosiery manufacturer invests successive doses of Rs. 1,000 each in the production of pullovers and the results are as given in the schedule below :

1	2	3	4
Doses applied (Rs. 1,000 each)	*Total output of Pullovers*	*Cost of production per Pullovers* Rs. a. p.	*Marginal output (Pullovers)*
1	200	5 0 0	...
2	500	4 0 0	300
3	1,000	3 0 0	500
4	1,600	2 8 0	600
5	2,500	2 0 0	900

This table makes it clear that as the manufacturer goes on enlarging his business by investing successive amounts of Rs. 1,000 each, the total output goes on increasing (column 2), the cost of production per pullover goes on falling (column 3), and the marginal or additional output of each extra dose of Rs. 1,000 goes on increasing (column 4).

We can show the above result with the help of a diagram too. The diagram shows the decreasing cost shown in column 3 above.

Along OX are measured the total quantity of pullovers manufactured, and along OY the cost of production per pullover. IR is



OUTPUT OF PULLOVERS

the cost curve. It is clear that, as the scale of production increases the cost per unit falls.

12. **Where Does the Law of Increasing Returns Operate and Why ?** The law of increasing returns generally applies to manufacturing industries. Here man is not hampered by nature. He goes ahead and benefits from all sorts of economies, both internal and external. We have already discussed the economies of large-scale production. They are available to a big manufacturer. As he increases the scale, production becomes more and more economical. The cost of production falls which means an increasing return.

Why does the law operate in big manufacturing industries ?

There are several reasons on account of which the law of increasing returns operates in manfactures :—

(1) There is a large scope for the introduction of machinery. What is more important is that it can be kept continuously at work. The result is that capital costs per unit of output are less.

(2) There is ample scope for the use of specialised labour. The result is a large output which means lowering of costs. This means increasing returns.

(3) The manufacturing industries being generally on a larger scale, are able to realise economies of scale, both internal and external. These economies relate to buying and selling, economy in administration, publicity and salesmanship, benefit of research and experiments, financial, technical and managerial economies, etc.

(4) Unlike agriculture, interruptions in work from natural disturbances, like changes in weather and seasons, are on a minor scale. Hence there are no costly breakdowns. Production is smooth and economical which means increasing returns.

(5) The operations are carried on within a small area so that supervision is easy and effective. There is little waste of materials and spoiling of machinery. Expert guidance and advice are always at hand. Hence production is carried on economically.

It is on account of all these reasons that the law of increasing returns operates in industry.

13. Law of Constant Returns. The law of constant returns is said to operate when the return remains the same as the business is expanded or contracted. Every additional investment of labour and capital yields the same return as before. Or, in other words, *whatever the scale of production, the cost of the product per unit remains the same.*

We have said before that in certain cases, and when the business moves towards the optimum, the returns increase, and when it goes beyond the optimum, the returns decrease. But, if after having reachead the optimum point, the returns continue to be the same, they are said to be constant.

The following table illustrates the law :—

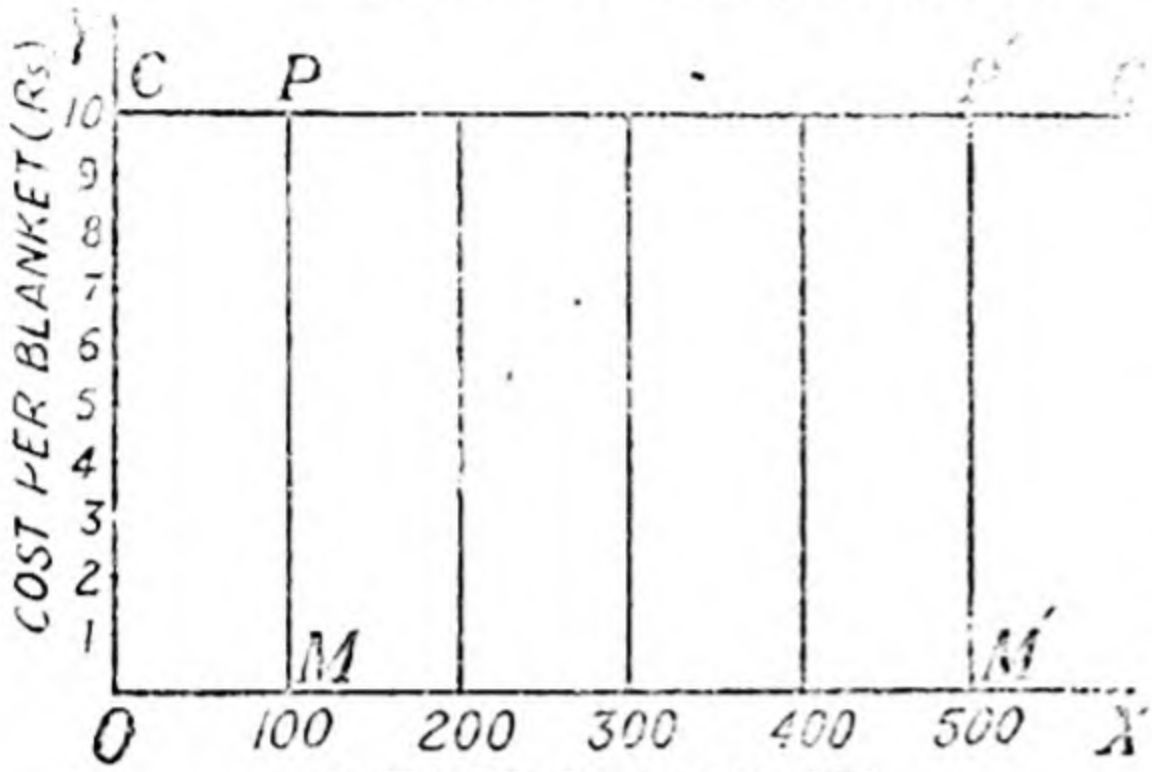
1 *Doses* *(Rs. 1.000 each)*	2 *Total number of blankets produced*	4 *Cost per blanket* *Rs.*	4 *Marginal output of blankets*
1 ...	100	10·00	...
2 ...	200	10·00	100
3 ..	300	10·00	100
4 ..	400	10·00	100
5 ...	500	10·00	100

A blanket manufacturer invests doses of Rs. 1,000 each in his business which progresses as follows :—

When he invests Rs. 1,000, the number of blankets produced is 100, and when he spends Rs. 2,000, the number of blankets produced is also doubled, *i.e.*, 200 (column 2). The return is therefore proportionate. The cost of production per blanket remains the same, *i.e.*, Rs. 10 whatever the scale of production (column 3). The marginal output remains constant, *i.e.*, 100 (column 4). Every extra investment of Rs. 1,000 yields an additional output of 100 blankets.

The law can also be represented in a diagram thus :—

Along OX are measured the successive investments of Rs. 1,000 each, and along OY the marginal or additional output in hundreds of blankets. The cost is Rs. 10 per blanket in each case, whether 100 or 500 blankets are produced. This is shown by the line CC′ running parallel to OX.



The Law of Constant Costs or Constant Returns

14. When Does the Law of Constant Returns Operate ? We have already pointed out that in an industry where nature's influence is dominant, *e.g.*, agriculture, diminishing returns set in quickly, and where man is supreme, the law of increasing returns operates. *But where the influence of the two is equally balanced, we shall have neither increasing returns nor diminishing returns. Instead, we shall have constant returns.*

In every industry, we find the influence of both man and nature. Nature controls the raw materials, while man directs the manufacturing side. If there is an industry, where the cost of raw material and the manufacturing costs are half and half, we can say that both man and nature dominate equally. Such an industry will be subject to the law of constant returns. The common example of such an industry is the woollen blanket-weaving industry. Here the raw material (wool), is supposed to cost about as much as the other manufacturing costs put together.

If there is integration of the extractive and manufacturing industries—*e.g.*, sugar making and cane-growing, steel making and iron-ore-mining, dairying and agriculture—the law of constant returns will operate. Here the two aspects of the industry are combined, *viz.*, the agricultural aspect which is subject to the law of diminishing returns and the manufacturing aspect which is subject to the law of increasing returns. It is possible for these two tendencies to counter-balance each other with the result that the law of constant returns operates.

We thus find that in every industry two tendencies are constantly at work, *viz.*, those of diminishing returns and of increasing returns. Whenever the scale of production is increased, the cost of raw materials and other factors may go up on account of increased demand. This tends to raise the cost of production per unit, or to bring about the operation of the law of diminishing returns. But the larger the scale, the greater the economies in the use of machinery, division of labour, buying and selling, research and publicity, etc. These economies tend to lower the cost per unit and set in operation the law of increasing returns. If these two tendencies are

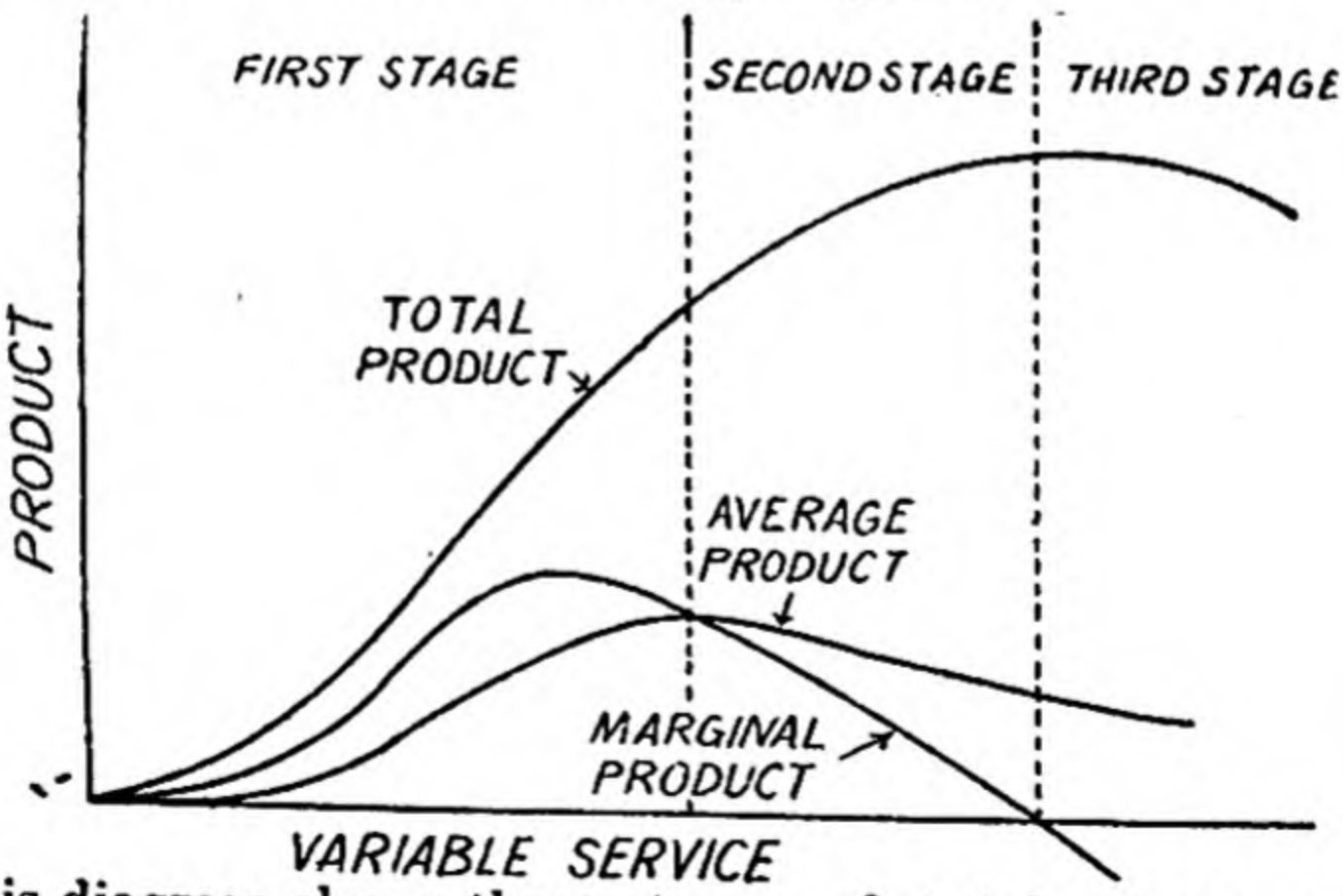
evenly balanced, *i.e.*, if one tendency neutralizes the other, we shall have the operation of the law of constant returns.

In actual life, however, either the tendency of diminishing, returns is stronger, as in agriculture and other extractive industries, or the increasing returns tendency is stronger, as in most manufacturing industries. Thus the operation of the law of constant returns is rather rare, and, if at all it operates, it lasts only for a short period of time. Then either the returns increase or decrease.

15. **Law of Variable Proportions.** Actually there are not three different laws of production but one law, *viz.*, the Law of Variable Proportions, known also as Law of Proportionality. According to this law, variation in the proportion of the factors used produces different results as regards the output produced. It is assumed that there is no change in the techniques of production. Normally as production is expanded the return first increases, remains constant for a while and then diminishes. It happens in every industry, where the duration of each stage is different according to the nature of industry. In agriculture, for instance, the stage of increasing returns is comparatively shorter, whereas in industry it is much longer. In fact a wise manufacturer may not let diminishing returns set in at all. Thus there are not three laws but three stages of the same law.

The variation in return is not due to the change either in the prices of factors of production or the prices of the output. It is rather due to technological facts underlying production of the commodity in question. Each industry has its own peculiar set of technical facts. For example, agriculture is dominated by land or nature, hence diminishing return sets in early. In manufacturing industries man and machinery are supreme and the diminishing return may be avoided altogether.

The three stages of the Law of Variable Proportions can be illustrated by means of the following diagram :—



This diagram shows three stages of total return, average return and marginal return.

16. **Producer's Equilibrium.** Just as a consumer, by acting on the law of substitution, gets maximum satisfaction and

attains an equilibrium position, similarly a producer will try to attain an equilibrium position by hitting at the most economical combination of the factors of production. Just as a consumer is faced with the problem of making a choice between different combinations of two or more goods, similarly a producer is confronted with the problem of choosing between different combinations of two or more factors of production. A rational entrepreneur would try to maximise his money profits from the production and sale of commodities, just as a consumer tries to obtain maximum satisfaction from the consumption of commodities. To produce a given output various combinations of factors of production are possible. But a rational producer or a firm would seek to produce that output with the 'optimum' or 'least-cost' combination of factors of production. (In Economics factors of production are also called 'inputs'.) When a producer is producing a given output with the least-cost combination of inputs, he is said to be in equilibrium. He will not like to change this combination and will continue it until conditions of production undergo some change.

In arriving at an optimum or least-cost combination, the producer is guided by the principle of substitution or that of equi-marginal returns. If a rupee spent on factor A results in a greater output than a rupee spent on factor B, it would pay the producer to divert expenditure from factor B to factor A ; that is, he will substitute factor A for factor B. He will be in equilibrium when the additional output resulting from the marginal rupee spent on factor A equals the additional output resulting from the marginal rupee spent on factor B. So long as the additional output due to the marginal rupee spent on factor A is not equal to the additional output resulting from the marginal rupee spent on factor B, it will be advantageous for the producer to go on substituting one factor for the other, *i.e.*, he will not have reached a position of equilibrium.

But most often units of factors cost much more than one rupee each. In such cases the additional output due to the marginal rupee spent on factor A would be equal to the marginal product of factor A divided by its price. As has been explained earlier, the marginal product of a factor is the additional product resulting from the employment of an additional unit of the factor. It, therefore, follows that the marginal product of a factor divided by the price of the factor is the additional product resulting from a rupee spent on the factor. Suppose the marginal product of a factor is 120 units of output and the price of the factor is Rs. 10. Then, $120 \div 10$, *i.e.*, 12 is the additional output resulting from the marginal rupee spent on that factor. The condition for the least-cost combination may, then, be put in the following form :—

$$\frac{MP_a}{P_a} = \frac{MP_b}{P_b} = \ldots\ldots = \frac{MP_n}{P_n},$$

where MP*a* is the marginal product of factor A and P*a* is the price of A, and so on. If $\frac{MP_a}{P_a}$ is greater than $\frac{MP_b}{P_b}$ it will be to the advantage of the entrepreneur to employ more of factor A and less of factor

B. He will employ more of one factor and less of the other till the above '*proportionality rule*' is satisfied.

Thus, it would have been clearly understood that it is not the marginal products of the various factors that are sought to be equalised by the producer for reaching equilibrium (*i.e.*, for profit-maximisation). What he seeks to equalise are the marginal products of the various factors divided by their respective prices. Of course, when the prices of all factors are equal, in that case alone will he seek to equalise the marginal products of the various factors. In that case the denominators (P*a*, P*b*....P*n*) will all be equal to each other, so that all that the producer is to attempt is to equalise the numerators, *i.e.*, the marginal products of the various factors (MP*a*, MP*b*,... MP*n*). But seldom are the prices of the various factors equal to each other.

WHAT YOU HAVE LEARNT FROM THIS CHAPTER ?

Law of Production. There are three laws :—

(*i*) The Law of Diminishing Returns or the Law of Increasing Cost.

(*ii*) The Law of Increasing Returns, or the Law of Decreasing Cost.

(*iii*) The Law of Constant Returns or the Law of Constant Cost.

The Law of Diminishing Returns or Increasing Cost. "An increase in the capital and labour applied in the cultivation of land, causes, *in general*, a less than proportionate increase in the amount of the produce raised, unless it happens to coincide with an improvement in the art of agriculture."

—(*Marshall*).

Limitations of the Law. It may not apply to the following cases :

(*a*) where new land is brought under cultivation,

(*b*) when capital applied so far has been insufficient, and

(*c*) when improved methods of cultivation are applied.

Intensive and Extensive Forms of the Law of Diminishing Returns

Intensive : when the same piece of land is cultivated, over and over again.

Extensive : when inferior or distant lands are brought under cultivation.

Application of the Law of Diminishing Returns. It applies to all extractive industries like agriculture, fishing, mining, quarrying, house-building, etc.

Is it true to say that the law of diminishing returns applies to agriculture and the law of increasing returns to manufacturing industries ? Not necessarily. Generally that is the case ; but both laws may apply to agriculture as well as to industry. They apply at different stages.

The Law of Diminishing Returns Operates in Agriculture due to

(*a*) operation of natural forces,

(*b*) limited scope for division of labour and the use of machinery,

(*c*) difficulty of supervision owing to wider area of operations,

(*d*) intermittent nature of agricultural work.

(*e*) exhaustion of the soil, and

(*f*) inferior lands yielding smaller returns.

The law specially operates in India due to uncertain rainfall, lack of irrigation, defective system of cultivation and the ignorance and poverty of the farmers.

The Law of Diminishing Returns in a General Form. "As the proportion of a factor in a combination of factors is increased, *after a point*, the

marginal and average product of that factor will diminish."—(*Benham*). The law applies where there is dearth or scarcity of an important factor of production so that combination becomes defective.

Importance of the Law of Diminishing Returns. It forms the basis of the Malthusian theory of population, the Ricardian theory of rent and the marginal productivity theory of distribution.

The Law of Increasing Returns or of Decreasing Cost. Where there is no dearth or scarcity of a factor of production, the law of increasing returns will apply, for the defective combination can be corrected by increasing the required factors. The law applies when the business is approximately of the optimum size. The law can be thus stated :

"As the proportion of one factor in a combination of factors is increased, *up to a point*, the marginal product of the factor will increase."

Where does the law of increasing returns operate and why ? It operates in all manufacturing industries on account of the economies of large-scale production and the supremacy of man shutting out the disturbing influences of nature.

The Law of Constant Returns. If the business keeps to the optimum size, the return will continue to be the same. The law of constant returns will apply where the two tendencies of diminishing returns and increasing returns just balance each other as in a half-and-half combination of extractive and manufacturing industries.

When the law of constant returns operates, the cost per unit remains the same whatever the scale of production.

The Law of Variable Proportions combines the above three Laws.

Producer's Equilibrium is the position of maximum aggregate profit with lowest average cost per unit.

IF YOU HAVE UNDERSTOOD THIS CHAPTER YOU SHOULD EASILY ANSWER THESE QUESTIONS

1. *What are the laws of production ? Describe the working of any one of them in the production of at least one main commodity in your province.* (*P.U. 1941*)

[By the laws of production, we understand those principles which govern the expansion of industry. There are three laws of production, *viz.*, the Law of Diminishing Returns, the Law of Increasing Returns and the Law of Constant Returns. (See. Sec. 3.)

The production of wheat, which is one of the main products of our State, is subject to the law of diminishing returns, cloth manufacturing is subject to increasing returns, and that of blankets to constant returns. Now read Sec. 4 onwards.]

2. *How would you explain diminishing returns in agriculture ?* (*Delhi Pre-Univ. 1961*)
[See Secs. 4, 5 and 8.]

Or

State and explain the Law of Diminishing Returns. Why is it called the law of increasing cost ? [See Sec. 4.] (*P.U. 1958*)

3. *Explain the working of the Law of Diminishing Returns with the help of a diagram To what types of production does it apply and why ?* (*P.U. 1961 Suppl ; Delhi 1953*)
[See Secs. 4 and 7.]

4. *State and explain the Law of Diminishing Returns with its limitations. Use diagrams.* [See Secs. 4 and 5.] (*Ajmer 1953 ; Bombay 1953 ; Nagpur 1941*)

Or

Explain and illustrate the Law of Diminishing Returns in production. What is the practical importance of this law ? (*Patna 1954*)

[See Sec. 4. Its practical importance lies in the warning that it gives to the farmer or the manufacturer to keep to the proper

scale of business and to adopt all possible measures to counteract this tendency.]

5. Explain why it is not possible to feed all the people in your State by devoting sufficient labour and capital to the cultivation of one best form.

[It is due to the operation of the Law of Diminishing Returns. See Sec. 4.]

6. Does the Law of Diminishing Returns apply also to factors other than land ? Explain fully. (*Sardar Vallabhbhai Vidyapeeth 1959*)

7. "Broadly speaking, while the part which nature plays in production conforms to the Law of Diminishing Returns, the part which man plays conforms to the Law of Increasing Returns." Discuss.

[See Sec. 7] (*J. & K. 1953 ; C.U. 1932*)

8. State and explain the Law of Diminishing Returns, What is its importance in economic theory ? [See Secs. 4 and 10.] (*P.U. 1959 Suppl.*)

9. In what way is the limitation to productivity explained by the law of diminishing returns ? (*Delhi H.S. 1961*)

10. Do you regard agriculture as a decreasing return industry and manufacture as an increasing return one ? Give reasons for your answer.

[See Sec. 4.] (*Gauhati 1957*)

11. Enunciate the Law of Increasing Returns. Does it apply to secondary industries only ? Suppose the production of steel in India obeys this law, how will consumers be affected if its production is encouraged ? (*P.U. 1932*)

[For the statement of the law see Sec. 11. The law applies to primary industries also but in the early stages.

Large production of steel will mean lower costs. The consumer will gain.]

12. Explain the law of increasing returns and show why this law operates in the manufacturing industry more widely than in agricultural production.

(*P.U. Inter. 1961*)

[See Sec. 12. It does not apply at all stages. If industry is expanded beyond proper limits, the Law of Diminishing Returns would set in].

13. State the Law of Constant Returns and mention the circumstances in which it may possibly operate. [See Secs. 13 and 14.]

CHAPTER XV

THEORY OF PRODUCTION *(Contd.)*

SCALE OF PRODUCTION

When to produce more and when less ?

1. **Introduction.** The theory of production throws some light on the scale of production. The entrepreneur's aim, of course, is to get the maximum profit. To do that, he must scientifically work out the optimum output, *i.e.*, one which will bring him the maximum aggregate profit or where the cost per unit is the lowest. This output need not necessarily be large. He must compare costs of different quantities and the price at which they can be sold in the market and then fix a proper scale of production. The general tendency is to enlarge the scale of production in view of the advantages that it offers.

2. **Advantages of Large-scale Production.** The modern factory system, with its extensive use of machinery and division of labour, is responsible for large-scale production. The following are its chief advantages :—

(*i*) *Economy, of specialised and up-to-date machinery.* There is a large scope for the use of machinery which results in lower costs. A large producer can instal an up-to-date and expensive machinery. He can also have his own repairing arrangement. Specialised machinery can be employed for each job. The result is that production is very economical. A small producer with a small market cannot keep the machinery continuously working. Keeping it idle is uneconomical. A large producer can work it continuously and reap the resulting economies.

(*ii*) *Economy of labour.* In a big concern, there is ample scope for division of labour. Specialized labour produces a large output and of better quality. It is only in a large business that every person can be put on the job that he can best perform. The large-scale producer thus gets the best out of every person he employs.

(*iii*) *Economies of buying and selling.* While purchasing raw material and other accessories, a big business can secure specially favourable terms on account of its large custom. While selling its goods it can attract customers by producing a greater variety and by ensuring prompt execution of orders. A smaller rate of profit results in large sales and higher net profits in a large-scale business.

(*iv*) *Economies of the overhead charges.* The expenses of administration and distribution per unit of production in a big business are much less. Interest, the pay bill, and other overhead charges are the same whether production is large or small. Thus the same

amount of expenditure being distributed over a larger output, results in a lower cost per unit.

(*v*) *Economy in rent.* A large-scale producer makes a saving in rent too. If the same factory is made to produce a large quantity of goods, the same amount of rent is divided over a larger output. This means a smaller addition to the cost per unit.

(*vi*) *Experiments and research.* A large concern can afford to spend liberally on research and experiments. It is well-known that, in the long run, these expenses more than repay. Successful research may lead to the discovery of a cheaper process. This may bring a larger profit. Only a large-scale business can incur such expenditure.

(*vii*) *Advertisement and salesmanship.* A big concern can afford to spend large amounts of money on advertisement and salesmanship. Ultimately they do bear fruit. Also, the amount of money spent on advertisement per unit comes to a low figure when production is on a large-scale. The salesmen can make a careful study of individual markets and thus acquire hold on new markets or strengthen it on the old ones. Thus a large-scale producer has a greater competitive strength.

(*viii*) *Utilization of by-products.* A big business will not have to throw away any of its by-products or waste products. It will be able to make an economical use of them. A small sugar factory has to throw away the molasses, whereas a big concern can turn it into power-alcohol. By utilising by-products, it can lower the costs of production.

(*ix*) *Meeting adversity.* A big business can show better resistance in times of adversity, It has much large resources. Losses can be easily borne. A small concern will simply collapse under such a strain.

(*x*) *Cheap credit.* A large business can secure credit facilities at cheap rates. Its credit is always higher in the money market, and the banks are only too willing to give advances. Low cost of credit reduces cost of production.

These are some of the advantages that a large-scale business has over a small-scale business. But let us see the other side.

3. **Disadvantages of Large-scale Production.** Large-scale production is not without its disadvantages. Some of these disadvantages are :—

(*i*) *Less supervision.* A large-scale producer cannot pay full attention to every detail. Costs often rise on account of the dishonesty of employees or waste of material by them. This is due to the lack of supervision. Owing to laxity of control, costs of production will go up.

(*ii*) *Individual tastes ignored.* Large-scale production is a mass production or standardised production. Goods of uniform quality are turned out irrespective of the requirements of individual customers. Individual tastes are not, therefore, satisfied. This results in a loss of custom.

(*iii*) *No personal element.* A large-scale business is generally managed by paid employees. The owner is usually absent. The sympathy and personal touch, which ought to exist between the master and the men, are missing. Frequent misunderstandings lead to strikes and lock-outs. This is positively harmful to the business.

(*iv*) *Possibility of depression.* Large-scale production may result in over-production. Production may exceed demand and cause depression and unemployment. It is not always easy or profitable to dispose of a large output.

(*v*) *Dependence on foreign markets.* A large-scale producer has generally to depend on foreign markets. The foreign markets may be cut off by war or some other upheaval. This makes the business risky.

(*vi*) *Cut-throat competition.* Large-scale producers must fight for the markets. There is wasteful competition which does no good to society or to businessmen. Many promising businesses are ruined.

(*vii*) *International complications and war.* When the large-scale producers operate on an international scale, their interests clash either on the score of markets or materials. These complications sometimes lead to armed conflicts. Many modern wars arose on account of scramble for materials and markets.

(*viii*) *Lack of adaptability.* A large-scale producing unit finds it very difficult to switch on from one process of production to another. In a depression, small-scale firms move away from declining trades to flourishing ones easily. In this way they are able to avoid losses. This adaptability is lacking in a big business.

Conclusion. In spite of these drawbacks, large-scale production offers several economies. The tendency in manufacturing and transport industries is to increase the scale. The advantages outweigh the disadvantages.

4. **Internal and External Economies.** Economies of large-scale production can be grouped under two headings : internal economies and external economies.

Internal economies are internal to a business. They are the entrepreneur's skills and secrets in running a business. They are the outcome of a particular manager's brain and his organising talents. Every manager has his own methods of using labour and machinery and of arranging finance, marketing, etc. All these are known as *Internal Economies.*

It should be carefully noted that the internal economies are simply due to the increase in the scale of production. They arise from the use of methods which small firms do not find it worthwhile to employ.

Internal economies may be of the following types :

(*a*) *Technical Economies.* They arise from the fact that it is easy to make a large machine, and there is a mechanical advantage in the use of a large machine. Economies also arise from linking of the processes (vertical combination) and from specialisation.

(*b*) *Managerial Economies.* These economies arise from the creation of specialised departments or from functional specialisation.

They also result from the delegation of routine and detailed matters to subordinates.

(*c*) *Commercial Economies.* They arise from the purchase of materials and sale of goods. Large businesses have bargaining advantages and are accorded a preferential treatment by the firms they deal with.

(*d*) *Financial Economies.* These economies arise from the fact that a big firm has better credit and can borrow at more favourable rates. Its shares enjoy a wider market which encourages a prospective investor.

(*e*) *Risk-bearing Economies.* A big firm can spread risks and can often eliminate them. This it does by diversifying output. Diversification imparts it strength and stability and makes it less vulnerable to changes in commercial fortune. There is also diversification of markets, of sources of supply, and of process of manufacture.

External Economies, on the other hand, are not a peculiar property of any particular business. They are known to all and shared by all. These economies are generally available to a localised industry, where certain developments confer common advantages on all firms, such as advantages of specialised transport, trained labour. credit facilities, etc. In fact, external economies follow from an increase in the size, not of any particular firm, but of the industry as a whole. Sometimes. an increase in the size of an industry may lead to external diseconomies rather than to external economies. Practical examples of external economies will be found in the classification of such economies given below :—

(*a*) *Economies of Concentration.* These economies relate to advantages arising from the availability of skilled workers, the provision of better transport and credit facilities, stimulation of improvements, benefits from subsidiary industries, and so on. Scattered firms cannot enjoy such economies.

(*b*) *Economies of Information.* These economies refer to the benefits which all arms engaged in an industry derive from the publication of trade and technical journals and from central research institutions.

(*c*) *Economies of Disintegration.* When an industry grows, it becomes possible to split up some of the processes which are taken over by specialist firms. For example, a number of cotton mills located in a particular locality may have the benefit of a calendering plant.

No hard and fast line can be drawn between internal and external economies. When a number of firms combine, external economies become internal economies. Whether particular economies are internal or external simply depends upon what operations it is profitable to combine.

It may also be noted that the expansion of an industry may result in some *diseconomies* also, because inferior or less efficient factors will be brought under employment.

It is worth noting that as commercial and technical education spreads, and other such developments take place, the field of internal

economies is being narrowed and that of external economies is being widened. This is the result of progress in different fields.

5. **What Limits the Size of a Business ?** We have seen that large-scale production has many advantages. This, however, does not mean that a business can be expanded indefinitely. Sooner or later, the margin of profitability is crossed and further expansion must stop.

The following are some of the factors which put a limit on the growth of a business :—

(*i*) *Shortage of labour or capital.* If increased supplies of trained labour are not available, the growth of a business will be automatically checked. In the same way, if fresh capital cannot be raised expansion stops. But these are not insurmountable obstacles. If the business prospects are very bright, and if the entrepreneur is a man of established reputation, he will be able to cross these hurdles.

(*ii*) *The nature of the market.* If demand is limited or fluctuating, it will be imprudent to increase the size of the business. The nature of demand is the most important limiting factor. It almost settles the matter. If individual tastes have to be satisfied, large-scale production is ruled out.

(*iii*) *Managerial capacity.* Another serious limitation comes from the capacity of the manager. A point is reached in the expansion of a business beyond which it is not possible for the manager to control it efficiently. There is a limit to what a man can successfully manage. Beyond that point, supervision will become lax, materials will be wasted and machinery mishandled. Cost will overtake profits, and in the end the profits may vanish. The limit is reached when the marginal revenue is equal to the marginal cost.

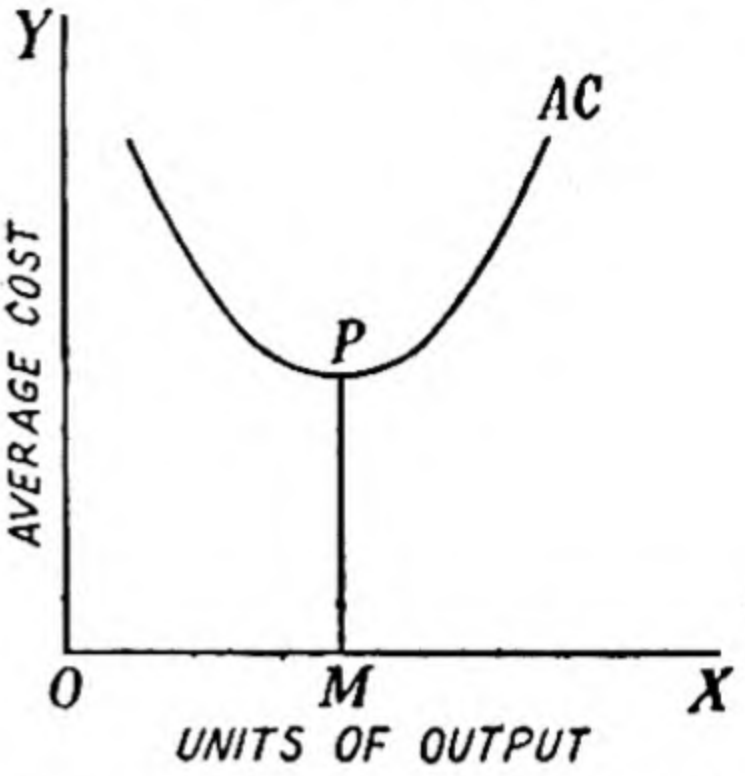
(*iv*) *The nature of the industry.* In some industries, large-scale production is out of the question. They require close personal supervision, *e.g.*, jewellery-making and tailoring. Or, there are industries where there is not much scope for the use of machinery and division of labour, *e.g.*, agriculture, fruit and vegetable gardening, etc. Bulky articles like bricks can only be made on a smallscale, for it will not pay to carry them over long distances.

(*v*) *Operation of the Law of Diminishing Returns.* It happens sometimes that the expansion of an industry leads to increasing costs, and the returns are less than proportionate. It will not be wise in such cases to expand the business.

These are some of the factors which prevent the growth of a business beyond a certain limit.

6. **Optimum Firm.** We have seen above both advantages and disadvantages of large-scale business. With a given plant, as production is expanded, it becomes more and more economical. This is due to the advantages of large-scale production. After a stage, however, a point of maximum advantage is reached. At this point, the average cost of production is the lowest. This is the optimum level of the firm concerned. ***It is thus the ideal size of the firm with minimum cost per unit.***

We can easily explain the concept of an optimum firm with the help of a diagram. Represent units of output along OX and average cost of production along OY. Average cost of production means total cost divided by the number of units produced. AC is the average cost curve. It shows the average cost of production at various levels of output. Obviously, the firm is optimum when it produces OM. At this level, it has got the minimum average cost, *i.e.*, PM. At any other level of output average cost is greater than PM.



Hence optimum firm is that which produces at the lowest average cost.

It may be noted that the optimum unit is not permanently fixed in size. If the businessman instals a new machinery, his average cost curve will be different. The point of minimum average cost will also shift. Thus, optimum is in relation to the machinery (plus other fixed factors of production like entrepreneurship, building, etc.), collectively known as plant. It varies with variations in the plant.

7. **Representative Firm.** To have some idea of the development of an industry it is essential, according to some economists, to fix attention on what is called a representative firm. Dr. Marshall defined a representative firm as a sort of an average firm. It is not the best firm. *It is supposed to have existed for a fairly long time, has fair access to internal and external economies, and is managed by a man of moderate ability.* It stands midway between the best and the worst firm.

8. **Advantages of Small-scale Production.** As against the large-scale producer, the small producer has advantages of his own :

(*i*) *Close supervision.* The small producer can himself supervise the smallest detail of the business. No body will be allowed to spoil machinery or waste materials. The master's eye is everywhere. There can be no fraud or idleness anywhere.

(*ii*) *Economical management.* It is unnecessary to engage a large staff. Verbal messages will take the place of written orders which are generally half understood. No elaborate accounts need be kept. All this means a great saving.

(*iii*) *Personal attention to customers.* He will send away his customers perfectly satisfied. He personally attends to their orders and at once removes difficulties and misunderstandings. Personal contact is pleasant and profitable.

(*iv*) *Personal touch with the employees.* The employer is in constant touch with his employers. He can attend to their difficulties or grievances and remove them without delay. Peaceful relations can be thus easily maintained, and strikes and lock-outs avoided. This makeis the business smooth and prosperous.

(*v*) *Greater adaptability.* If conditions of trade change, the small producer can change his front. He is in a position to take quick decisions. He has to consult nobody except himself.

(*vi*) *Independence.* The small-scale producer is happy that he is independent. He will not like to work as a subordinate in a big business. This sense of independence is a great incentive for hard work.

(*vii*) *Nature of demand.* The small producer has an advantage over the large producer when the demand is either small or is constantly changing. He has thus a sphere of his own where he has advantage over the large-scale producer.

(*viii*) *Nature of industry.* There are some industries where the personal factor is very important, *e.g.*, tailoring. It is quite advantageous to run such business on a smallscale.

It is due to advantages like these that the small-scale businesses have survived and are able to compete with big businesses even in modern times.

9. **Disadvantages of Small-scale Production.** The small-scale producer cannot reap those economies which are available to a big concern. His drawbacks can be enumerated thus :

(*i*) There is less scope for the use of modern machinery and labour-saving devices. The costs, therefore, of the small-scale producer are generally higher.

(*ii*) There is little scope for division of labour. The advantages of division of labour are, therefore, lost to the small producer. He cannot put the right man in the right place. Goods are not, therefore, made by experts. The goods are thus inferior in quality and higher in cost.

(*iii*) The small-scale producer is at a disadvantage in the purchases of raw materials and other accessories. This also raises his cost of production.

(*iv*) A small businessman cannot afford to spend large sums of money on research and experiments. He cannot, therefore, invent new processes nor new materials. He treades the beaten path and is soon overtaken by the rivals.

(*v*) Cost of rent, interest, advertisement, etc., per unit of the output will be higher. A small-scale producer has higher overhead charges.

(*vi*) With his limited resources the small-scale producer cannot meet bad times. The business may, therefore, collapse at the slightest touch of adversity. A small business is financially weak.

(*vii*) A small-scale producer cannot secure cheap credit because the credit of small businesses is not generally as high as that of big businesses. Since he has to pay high rate of interest, his cost of production is higher.

(*viii*) By-products have to be thrown away as so much waste. A small-scale producer cannot have the equipment to make an economical use of by-products. This also raises his cost of production.

10. **Causes of Survival of Small-scale Production.** In spite of the advantages mentioned above, the small-scale producer has not disappeared. Competition from large business has failed to crush him. The small-scale producer still survives even in highly industrialised countries like England, Germany, France and Belgium.

What has helped the small producer ? There are several factors which are responsible for the survival of the small-scale producer :

(*i*) The small-scale producer has certain *advantages over the large business*, as we have already seen. He can give personal attention to every detail. He can look after his customers and employees personally. His management is much more economical.

(*ii*) In some cases, the *nature of the demand* is such that competition from large-scale business is ruled out ; especially if the demand is limited, local or fluctuating. In such cases, it is not worthwhile to have large-scale production. The field is free for the small producer.

(*iii*) Some industries are such that they must produce on a small scale. Here the *personal factor* is important and sometimes even indispensable, *e.g.*, in tailoring and jewellery-making. In some cases, there is a little scope for the use of machinery and division of labour, *e.g.*, in agriculture, horticulture, poultry-rearing, dairying, etc. These industries furnish an ample field for small-scale enterprise.

(*iv*) Sometimes the very *existence of the large-scale business* creates work for small-scale enterprise, *e.g.* repairing of motor cars, trucks and cycles. Small industries act as subsidiary industries or industries supplementary to the large-scale industry. As such they have ample chance to survive.

(*v*) There are some recent developments which have proved very helpful to the small producer : (*a*) *Advent of electricity* is one such factor. It is not necessary now to generate power in each factory. Cheap electricity has become available and payment is made for the current actually consumed. In this respect the large business has no special advantage. (*b*) *Technical journals* have spread scientific knowledge all round so that it is no longer a monopoly of big business. (*c*) *Co-operation* also helps the small-scale producer. By working together in a group, the small-scale producers can have all the economic advantages open to a big business.

(*vi*) In the case of cottage industries, there is the further advantage of working in very *congenial environments* of the home and receiving unpaid assistance from the members of the family. The work is pleasant and is carried on even though it is less profitable.

There are additional reasons why Indian cottage industries have survived. They are hereditary occupations and are followed as a matter of course irrespective of their profitability. The standard of living of those engaged in these industries is very low, and can be maintained by the small earning made in these industries.

In India there is a wide field for small-scale industries. Even now cottage industries support millions of people. India is an agricultural country and the peasant is in a state of enforced idleness for

several months in a year. Agriculture must, therefore, be supplemented by suitable cottage industries. Besides, labour is cheap and machinery is dear. The All-India Village Industries Association has been doing a lot to popularize small-scale industries. The Indian National Congress, the Government of India, and State Governments render enthusiastic support to small and cottage industries in every possible way. In the Second Five-Year Plan, pointed attention was paid to the development of small-scale and cottage industries. A sum of Rs. 200 crores was provided for the purpose. This will not only make our farmers and countryside people more prosperous but also help unemployed people to get jobs. The Indian economy will become a little more balanced.

WHAT YOU HAVE LEARNT FROM THIS CHAPTER

Economies of Large-scale Production :

(*i*) Specialised and up-to-date plant and machinery.
(*ii*) Economy of specialized labour.
(*iii*) Economies of buying and selling.
(*iv*) Economies in the overhead charges.
(*v*) Economy in rent.
(*vi*) Benefits of scientific experiments and research.
(*vii*) Economy in advertisement and salesmanship.
(*viii*) Utilization of by-products.
(*ix*) Capacity to face bad times.
(*x*) Cheap credit facilities.

Disadvantages of Large-scale Business:

(*i*) Lax supervision.
(*ii*) Individual tastes of the consumers ignored.
(*iii*) No personal touch between the employers and the employees.
(*iv*) Large-scale production may cause depression.
(*v*) Dependence on foreign markets is dangerous.
(*vi*) Cut-throat competition.
(*vii*) International competition leads to war.

What Limits the Size of a business :

(*i*) Scarcity of labour and capital.
(*ii*) Nature of market.
(*iii*) Limited managerial capacity.
(*iv*) Nature of industry.
(*v*) Operation of the law of diminishing returns.

Optimum Firm. It is the ideal size of the firm with minimum cost per unit. It is not permanently fixed in size. It varies with variation in the use of fixed factors collectively called plant.

Representative Firm. It is an average firm, which has enjoyed a fairly long life, has a fair access to internal and external economies and earns a fair ate of profit.

Advantages of small-scale Production :

(*i*) Close supervision.
(*ii*) Economical management.
(*iii*) Personal attention given to customers.
(*iv*) Personal touch between the employers and the employees.
(*v*) Greater adaptability.
(*vi*) Economic independence.

Internal and external Economies. *Internal economies* are peculiar to a particular business and unknown to others. They are the result of superior organisation, ability and higher technical efficiency of a particular entrepreneur. These economies may be technical, commercial and financial.

External economies. They are common to all industries, *e.g.*, advantages arising out of a localised industry. Such advantages are shared by all They are not the secrets of any particular business.

Disadvantages of small-scale Production :

(*i*) Less scope for the use of machinery.

(*ii*) Less scope for division of labour.

(*iii*) Disadvantages in buying and selling.

(*iv*) No research or costly experiments.

(*v*) Higher overhead charges of rent, establishment expenses, etc.

(*vi*) Cannot face hard times.

(*vii*) Cannot secure cheap credit.

(*viii*) By-products are wasted.

Causes of survival of Cottage Industries :

(*i*) Benefits arising out of close supervision and personal touch with employees and customers.

(*ii*) For some products the demand is limited, local, or fluctuating.

(*iii*) The advantage of personal factor in certain industries or limited scope for the use of machinery.

(*iv*) The very existence of large-scale industry creates work for the small industry.

(*v*) New developments favouring the small-scale producer :

(*a*) Advent of electricity. (*b*) Technical journals and research in national laboratories. (*c*) Co-operative movement.

(*vi*) Congenial environments of cottage industries.

In India, there is a large scope for the development of cottage industries. Machinery is dear, labour is cheap, distances are long and means of transport and communication are under-developed. These industries can be dovetailed into agriculture.

CAN YOU ANSWER THE FOLLOWING QUESTIONS ?

1. What do you understand by large-scale production ? Give examples to show the class of industries in which the advantages of the large-scale production are most marked. (*Delhi 1946*)

[See Sec. 2. Transport industries and manufacturing industries are such industries.]

2. Explain the advantages and disadvantages of large-scale production.

[See Secs. 2, 3 and 5.] (*Rajasthan Inter. 1960 ; P.U. 1959*)

3. Discuss fully the advantages of large-scale production. Is there any limit to the gains from large-scale production ? [See Secs. 2 and 5.] (*Delhi H.S. 1959*)

4. What are the limits to the growth of a business ?

5. What are (a) the limitations of large-scale production and (b) the disadvantages of large-scale production ? [See Secs. 3 and 5.] (*Ajmer Board 1958*)

6. What are the special advantages which a large-scale business unit enjoys ? Why do small business units continue to exist in spite of the competition of large units ? [See Sec. 10.] (*Pb. Univ. H.S. 1961 Sept.*)

7. Where and why is small-scale production more profitable than large-scale production ? [Sec. Sec. 8.] (*Ajmer 1955*)

Or

Has a small-scale producer any place in modern Indian economy ? Can you mention some industries which can be successfully run on a small scale in your State ? [See Sec. 10.]

[In every State, there are numerous examples of localised industries. Many districts are producing specialities of their own. They can all be further developed and run on scientific lines. Then there are industries based on agriculture, *e.g.*, jam-making. Even with small crushers sugar can be made at a very low cost. Fruit canning and fruit preservation are also suitable industries which can be successfully run on a small scale.]

8. Examine briefly the advantages of large-scale and small-scale industries. Which of them in your opinion are suitable to India, and why ? (*Bombay 1953*)

[See Secs. 2 and 5. Since in India capital is scarce, machinery is dear, and labour cheap, small-scale industries are more suitable for the present. But, in course of time, we shall be able to have large-scale industries too in sufficient number.]

9. What do you understand by 'scale of production' ? Why does this scale differ from country to country ? Give illustrations from India.

(*P.U. 1953 Suppl.*)

[By 'scale of production' we mean the scale at which commodities may be produced, whether they are produced on a large scale or small scale.

The scale of business in a country depends on the number and character of the people, the availability of materials and markets, the state of technical knowledge, the standard of managerial ability, the amount of capital available and the policy of the State. In India, production is generally on a small scale. Agriculture, which is the biggest industry, is on a small scale because the holdings are small. In business retail transactions are the most numerous. Lack of capital, entrepreneurial ability, managerial and operative skill and of technical know-how explain the predominance of small-scale production in India.]

10. Indicate the economies that an entrepreneur can obtain from internal resources in an industry. To what extent is he dependent upon external economies for the conduct of his enterprise ? (*Rajputana 1942*)

11. What are internal economies and external economics ? How do they account for increasing returns ?

[See Sec. 4.] (*Sardar Vallabhbhai Vidyapeeth 1959*)

CHAPTER XVI

SUPPLY

Stock is not Supply

Introduction. We have reached the end of the study of the Department of Production. This study, however, will be incomplete without a knowledge of the nature of supply and the forces that lie behind it. The Department of Consumption is concerned with human wants and their satisfaction. Consumption deals with the demand side, and production with the supply side. This chapter is a counter-part of Chapter VI on demand.

1. **Meaning of Supply.** Supply means the qualities that a seller is willing and able to sell at different prices. It is obvious that if the price goes up, he will offer more for sale. But if the price goes down, he will be reluctant to sell and will offer to sell less. Supply thus varies with price. Just as we cannot speak of demand without reference to price and time, similarly we cannot speak of supply without reference to price and time. Supply is always at a price. The supply of any good may then be defined "as a schedule of respective quantities of the good which people are ready to offer for sale at all possible prices.

Just as demand implies willingness and ability to pay, in the same manner the phrase 'ready to offer for sale' in the definition of supply given above implies both willingness and ability to deliver the goods.

Like demand, supply is also relative to person, place and time. It would be different in a different place, at a different time and with a different person. When we say that A is willing to supply 100 maunds of wheat at Rs. 10 per maund, we mean that he will do it in a particular set of circumstances. Any change in these circumstances will bring about a change in the supply.

2. **Distinction Between Supply and Stock.** The terms 'supply' and 'stock' are often confused. A clear understanding of the difference between the two is essential. Stock is at the back of supply. It constitutes potential supply. Supply means the quantity actually offered for sale at a certain price, but stock means the total quantity which can be offered for sale if the conditions are favourable. At any time, the godowns in the *mandi* may be full of wheat. This is the stock. If the price is low, very little wheat will come out of the godowns. The quantity that actually comes out is the supply. The stock will change into supply and *vice versa* according as the market price rises or falls. In case of perishable articles like fresh milk and vegetables, there is no difference between stock and

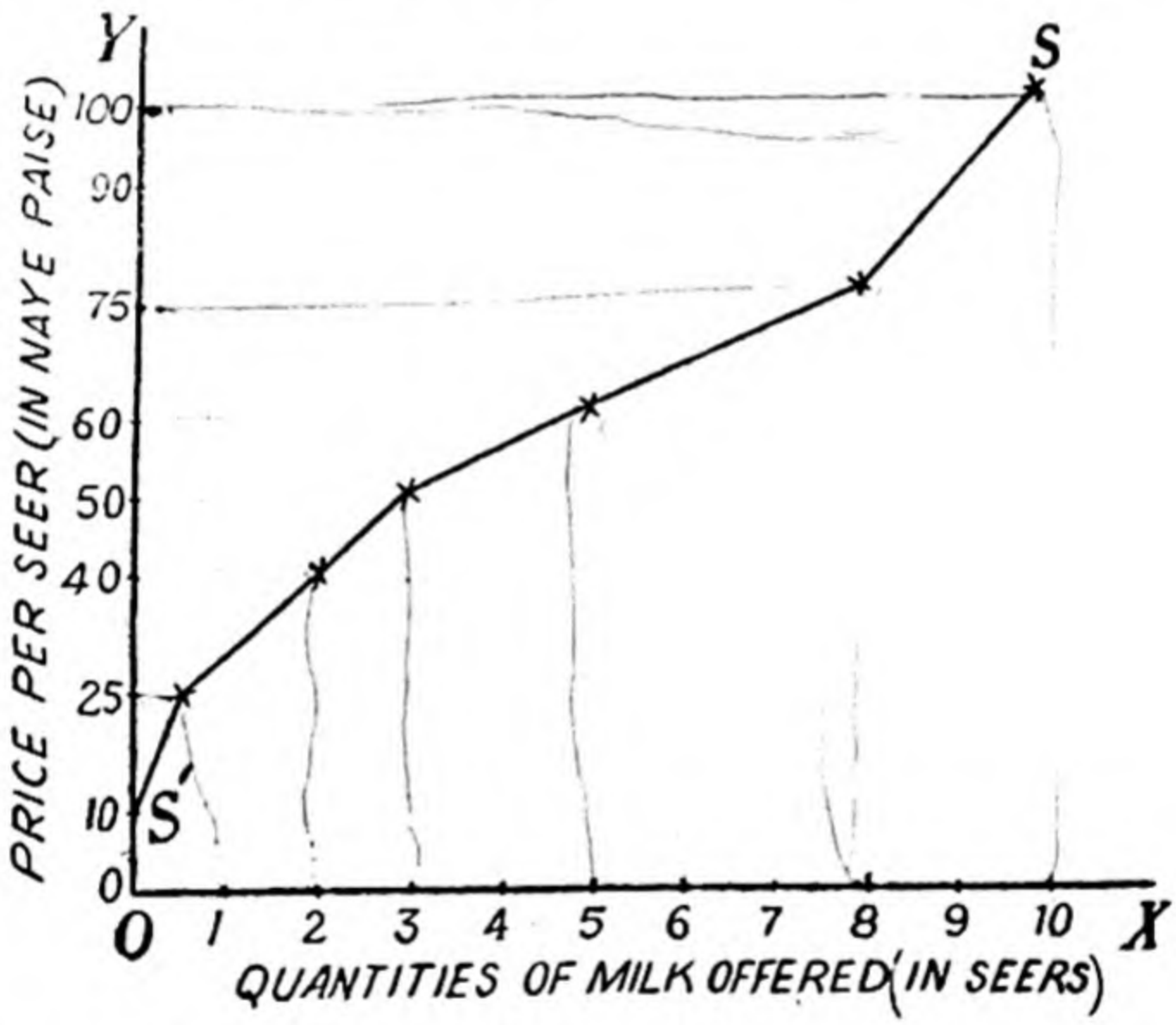
supply. The entire stock is supply and has to be sold off, for unless it is disposed of quickly, it will perish.

3. **Supply Schedule.** Corresponding to the demand schedule of milk, given in Chapter VI, Section 3, we have a supply schedule of the milkman.

Price per seer Rs. nP.	*Quantity offered for sale*
1.00	10 seers.
0.75	8 ,,
0.60	5 ,,
0.50	3 ,,
0.40	2 ,,
0.25	½ ,,
0.10	nil.

We notice that as the price falls, less milk is being offered for sale, and as the price rises, the milkman is prepared to sell more.

4. **Supply Curve.** The supply schedule can be represented in the form of a curve as under :



Quantities of milk offered for sale are measured along OX and prices along OY. The supply curve SS′ slopes upwards as we go from the left to the right. This means that as the price rises, more is being offered for sale and *vice versa*.

5. **Law of Supply.** From a study of the supply schedule and supply curve, we can formulate the law of supply thus :

"In the given market, *at any given time*, **the quantity of any goods which people are ready to offer for sale generally varies directly with the price."**

'*Varies directly*' means that as price rises the quantity offered increases, and as it falls the quantity offered decreases. It should be noted that, in the case of demand, the quantity demanded varies *inversely* with the price, *i.e.*, as the price rises, demand decreases, and *vice versa*.

The law of supply may be put in another way. **"Other things remaining the same, as the price of a commodity rises, its supply is extended, and as the price falls its supply is contracted."**

When prices are low, many individuals and firms do not find it worthwhile to sell, for their costs are high and profits low. But when prices rise they are in a position to carry on production with profit and sell more. Higher prices mean higher profits. The desire for larger profits carries production to the farthest limit yielding a net profit.

Some Exceptions : (*a*) In an auction, goods are sold away whatever the bid. It is possible that the seller is badly in need of money and wants a certain amount of it. As soon as that amount is made up, he will refuse to sell more. The higher the price, the smaller the quantity he will need to sell in order to get the required amount. It is also possible that a person wants to get rid of a quantity of goods as in the case of a person going abroad. In such a case, he will sell away all that he has, whatever the price offered.

(*b*) When a further heavy fall in price is expected, the sellers may become panicky. They will sell more even if the price falls.

These exceptions, however, do not falsify the law of supply enunciated above. Generally the law holds good.

6. **Extension and Contraction of Supply and Increase and Decrease of Supply.** As in the case of demand, so in the case of supply, we must distingiush between extension and contraction on the one hand, and increase and decrease on the other.

Extension and contraction. When the quantity offered for sale increases or decreases merely because price has risen or fallen, we use the terms extension and contraction. The supply schedule is the same and we travel up and down the same supply curve.

Increase and decrease. If, on the other hand, the change in the quantity offered for sale is caused, not by a change in price, but by a change in the conditions of supply, we say that supply has increased or decreased. The change in the conditions of supply implies a change in the technical conditions ; perhaps a new process or a new material has been discovered, a new labour-saving device has been discovered, or raw metarials and other factors have become cheaper. On account of these new developments, the manufacturer may be able to offer more for sale even if the price has remained the same or gone down. If the conditions have become unfavourable, he will not be able to supply the same quantity at the old price.

Extension of supply means that more is offered at a higher price, while increase in supply signifies that either more is offered at the same price or the same quantity is offered at a lower price.

Contraction and decrease in supply are the opposites of expansion and increase in supply. *Contraction of supply means that less is offered at a lower price, but decrease in supply means that less is offered at the same price or the same quantity is offered at a higher,*

price. These changes can be illustrated with the help of a diagram as under :—

Prices are measured along OY and quantities offered for sale along OX. SS′ is the old supply curve and BB′ (dotted curve) is the new supply curve. Fig. 1 shows extension and contraction of demand. At PM price, amount OM is offered, but at the price P′M′ (which is higher than PM), OM′ is offered, which is more. Fig. 2 shows an increase in supply, for OM′ (*i.e.*, more) is offered instead of OM for

Diagrammatic Representation of Increase and Decrease in Supply.

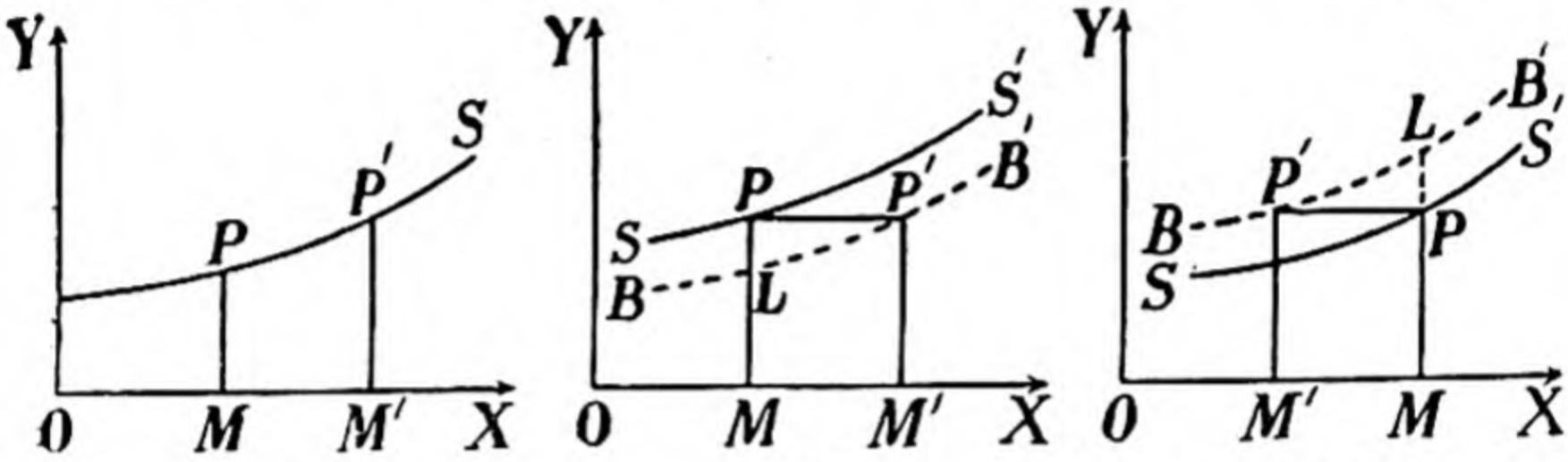


Fig. 1. Extension and Contraction.

Fig. 2. Increase in Supply.

Fig. 3. Decrease in Supply

the same price (PM=P′M′). Also the same quantity OM is offered at a lower price LM. In Fig. 3, O′M′ (*i.e.*, less) is offered in place of OM although price is the same (P′M′=PM). Also, the same quantity OM is offered at a higher price LM. This means a decrease in supply.

7. **Elasticity of Supply.** The law of supply says that the supply varies directly with the price. If the price rises, the quantity offered will extend, and as it falls the quantity offered will contract. This attribute of supply, by virtue of which it extends or contracts with a rise or fall in price, is known as the *Elasticity of Supply.* It refers to the sensitiveness or responsiveness of the supply to changes in price.

But supply may not always respond to the changes in price at the same rate. If the commodity is perishable, *e.g.*, fresh milk, ripe fruits, vegetables, etc., the supply cannot be withheld and the whole of it must be offered for sale whatever the price. In this case, as already pointed out, there is no difference between stock and supply. *In other words, the supply is inelastic, i.e., it is insensitive to a change in price.* The price may be falling but the commodity will have to be sold away.

In the same manner, if the production of a commodity requires a large fixed capital, say iron and steel products, cement, aeroplanes, motor cars, etc., the supply cannot be quickly increased when the price rises, or decreased when it falls. The same is the case with a commodity which takes a long time to be put on the market. For example, you can increase the supply of wheat or cotton only in a year's time at the next harvest. In this case, too, it is difficult to adjust the supply to demand immediately. In such cases, the supply is called inelastic or less elastic.

But if there is a very large stock of commodity already in existence and the commodity can be stocked, or kept back without loss, then the supply put on the market will vary with price. More

will be offered when the price is high and less when it is low. The supply of such a commodity is said to be elastic.

To sum up : We can say that if a small change in price (rise or fall) leads to a big change in supply (extension or contraction), the supply is elastic ; on the other hand, if a big change in price (rise or fall) leads to a big change in supply (extension or contraction), it is inelastic or less elastic. It should, however, be noted that the supply of no commodity is absolutely inelastic ; hence, as Marshall says, we should call it comparatively inelastic or less elastic.

Diagrammatic Representation of Elastic and Inelastic Supply.

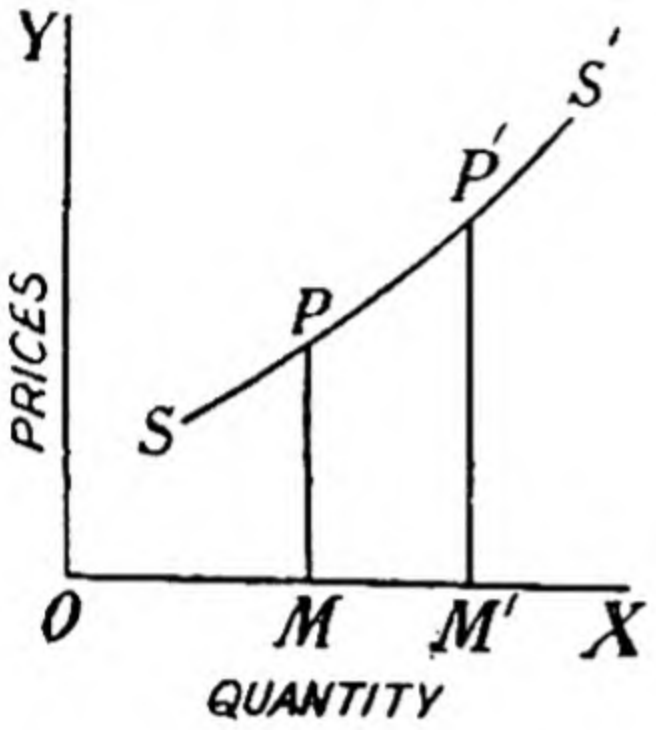


Fig. 1.
Elastic Supply.

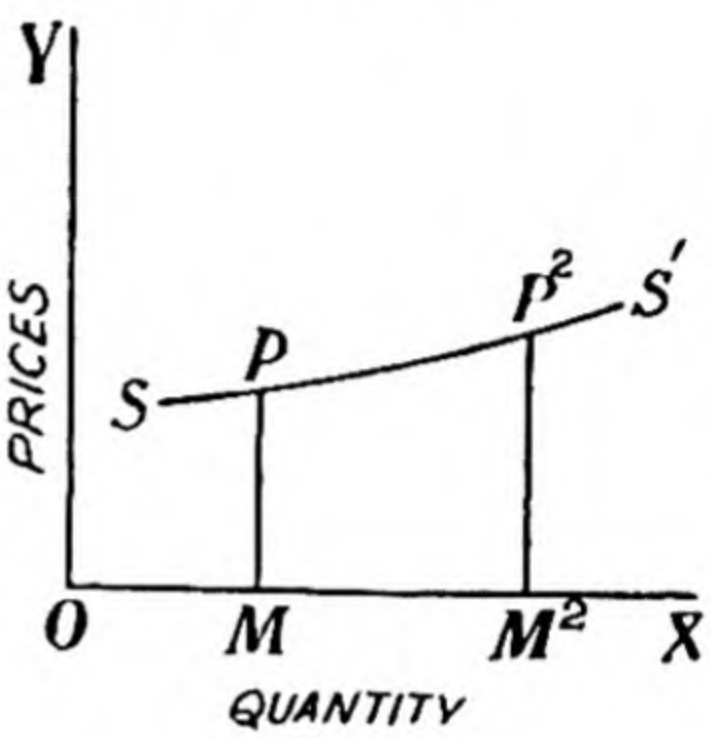


Fig. 2.
Less Elastic or Inelastic Supply.

Fig. 1 represents inelastic supply and Fig. 2 elastic supply. Price is measured along OY and quantity offered along OX. In Fig. 1 when the price rises from PM to P′M′ (which is a considerable rise), the quantity offered increases from OM to O′M′ only, which is not much. Hence the supply is not elastic.

In Fig. 2, the rise in price from PM to P^2M^2 is not so large, but the increase in supply from OM to OM^2 is quite considerable. Hence the supply is elastic.

8. **Changes in Supply**. We cannot attribute changes in supply to changes in price, because when supply changes in consequence of a change in price it is called extension and contraction, and not increase or decrease. In order to account for increase or decrease in supply, we have to discover the factors which bring about a change in the very conditions of supply. In other words, we must ascertain why supply expands or shrinks irrespective of the changes in price. The answer lies in the changes in the system of production. The following are some of the factors which affect supply :

(1) *Natural Conditions*. If rainfall is plentiful, timely, and well distributed, there will be bumper crops. On the contrary, floods, droughts, or earthquakes and other natural calamities are bound to affect production adversely. This is one set of conditions which brings about a change in the supply.

(2) The volume of production or supply is also influenced by *progress in technique of production*. In manufacturing industries this is a very important factor. A new machine may have been invented, a new process discovered, or a new material found, or per-

haps a new use may have been found for a by-product. The discoveries of synthetic dyes, artificial rubber and wool are some such discoveries. The very conditions of supply are changed by such discoveries or improvements in technique.

(3) *A change in the prices of the factors of production* also brings about a change in the supply of the commodity. If they become cheap, the supply will increase, and *vice versa*.

(4) *An improvement in the means of transport* reduces the cost and increases the supply of the product. Thus conditions of supply change.

(5) *Calamities like war or famine* must also affect the supply of goods. We are only too familiar with the shortage of commodities caused by the war, and the dislocation of production by famine. Even at higher prices adequate supplies were not forthcoming.

(6) *The monopolists deliberately increase or decrease the supply* as it suits them. Thus exercise of monopolistic power brings about a change in supply.

(7) *The fiscal policy of the Government* also affects the supply. A higher import duty will restrict the supply and a lower duty will stimulate it.

These are some of the factors which bring about changes in the conditions of supply and increase it or decrease it.

9. **Force Behind Supply—Cost of Production.** A study of demand has shown us that the force behind it is the marginal utility of the commodity to the consumer. Every consumer compares consciously or unconsciously the price that he has to pay and the satisfaction that he derives. He goes on buying more so long as the satisfaction that he derives is greater than the price he has to pay ; and he stops buying at a point where the price and the satisfaction are just equal to each other. This point is the point of marginal utility. We see that price measures marginal utility.

A similar analysis of the suplly will show that the supply of a commodity is influenced by its cost of production. This is the force behind supply. Let us then turn our attention to the study of the cost of production.

Cost of Production and Expenses of Production. In ordinary speech, the term 'cost of production' is used in the sense of money costs or expenses of production. In Economics, however, it means the labour, efforts, sacrifices and exertion involved in the production of a commodity, while expenses of production signify only money cost.

10. **Analysis of Cost of Production.** The cost of production of a commodity is composed of two types of costs : *Prime costs* and *Supplementary costs*.

(*a*) **Prime Costs.** Prime costs mean variable or direct costs. They include the money cost of the raw material used in making a commodity, the wages of the labour directly spent on it, and the extra wear and tear of the machine that makes it. For example, if you ask a carpenter what he would charge for a chair, he

would first think of the wood and cane that he used and the number of days he spent in making it. This is the prime cost.

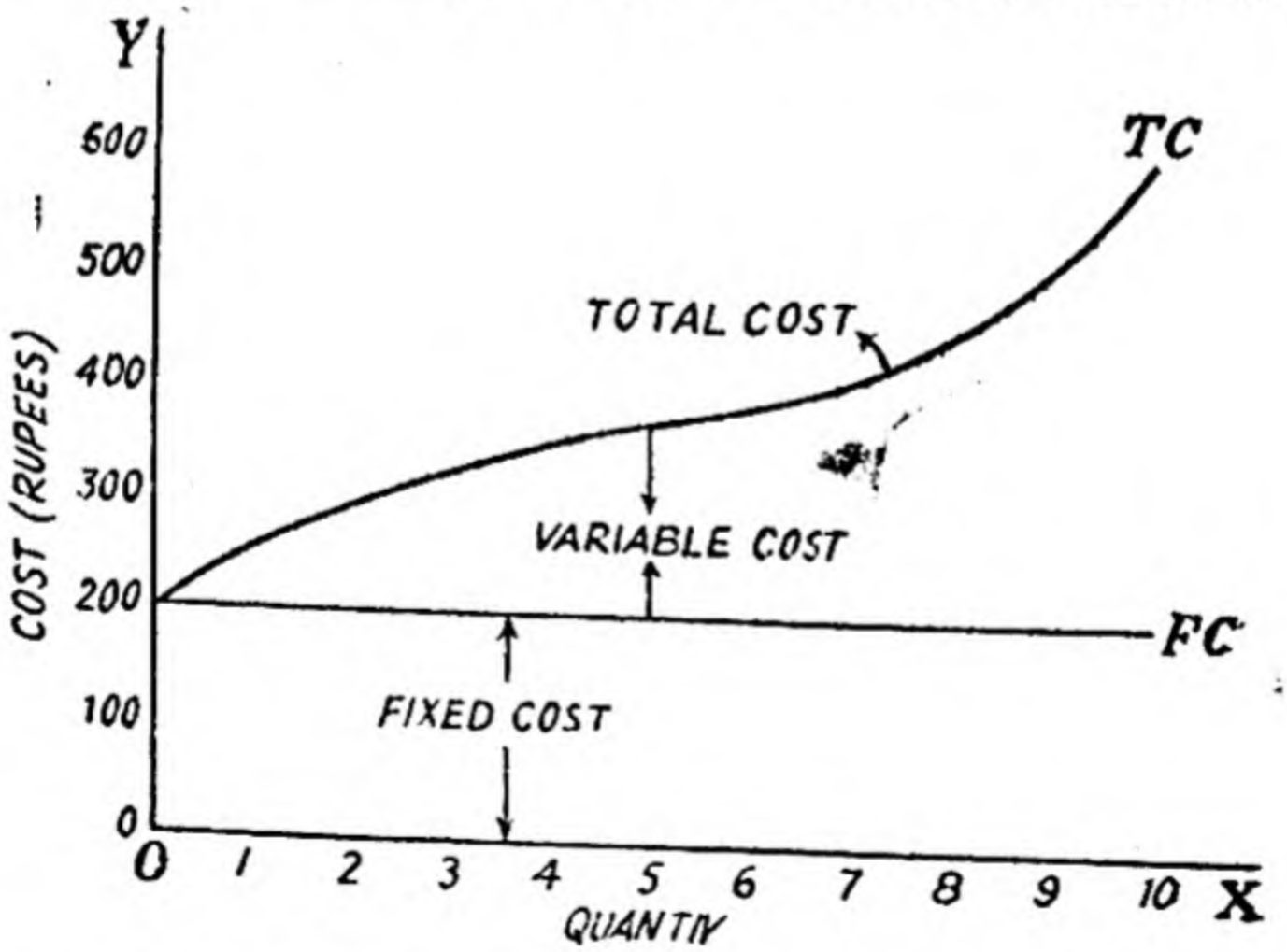
It is clear that the prime cost of a commodity varies with the quantity produced. If more chairs are made, more money will have to be spent on carpenter's wages as well as on wood. If production is stopped the prime costs disappear. *Prime costs, therefore, are also called* the variable costs.

(*b*) **Supplementary Costs.** Will the maker of the chair only charge for the wood and his wages ? These things are, of course, the first that he will think of. But this is not the amount he will charge for it, and he will be a fool if he does so. Besides these, he will think of including a portion of rent that he is paying and interest on the capital invested, the municipal taxes, etc. A big company will further have to include a portion of the salaries of the manager, the clerk, the peons, the cost of advertisement and salesmanship, etc. These costs must also be covered. *They are called supplementary costs, on-costs or over-head charges or fixed costs.*

The supplementary costs do not vary with the volume of production. Whatever the quantity of goods produced, big or small, charges on account of rent, taxes, interest, salaries of foreman, etc., must be paid. Even if the orders cease to flow in and the factory is closed, these costs will continue. They are fixed costs.

Normally, or in the long run, a producer must recoup himself for both prime and supplementary costs. Each article sold must fetch a price sufficient to compensate the producer for the raw material used, the wages paid to make it, and a fair proportion of the supplementary costs or overhead charges.

But if times are not normal, if there is depression in business or dumping is being done by foreign competitors, then it will not be



possible to recover both the prime and supplementary costs. Rather than close down the factory, the manufacturers may rest content with only the prime costs and perhaps a small proportion of the supplementary costs besides.

Total cost is made up of both the fixed cost and the variable cost. They are represented in this diagram. OX and OY are the two axes ; along OX is represented the quantity produced, and along OY the cost. FC, a straight horizontal line represents the fixed cost, and the area above it the variable cost, so that the TC is the total cost curve.

Total cost = Fixed cost + Variable cost.

11. **Marginal Cost of Production.** The cost of additional or marginal output, which a producer just considers worthwhile to produce, is called his marginal cost of production. For example, if a producer of pullovers increases his production from 100 to 200 pullovers, and does not consider it worthwhile further to increase the scale, then the extra 100 pullovers that he produces is called his *marginal output*, and its cost is the marginal cost of production. The producer will go on expanding his output so long as the market price of pullovers is higher than his cost of production. But as he produces more, his cost will increase and a point will be reached when the costs overtake the price. He will stop there. He has arrived at the margin. Further production will mean a loss. The cost of the last addition to his scale of production is the marginal cost of production. **Hence marginal cost means the cost per unit of the marginal output, *i.e.*, the output considered just worthwhile to be produced and the output where he stops further production.**

Marginal cost of production also means the cost of production per unit of the marginal producer. Producers engaged in a certain industry vary in ability. Their costs vary according to their efficiency and the prices at which the factors are available to them. The producer who is the least efficient and who has, therefore, the highest cost of production is called the *marginal producer*. The cost at which he can place his goods in the market is also called the marginal cost.

The marginal cost coincides with the price in the market, for if the price in the market is higher, another less efficient producer will start producing, whose cost will be higher and will be equal to the price in the market. He will become the marginal producer. If the price in the market is lower than his cost, then he will stop producing. The supply will decrease, and the price will move up till it reaches the cost of the marginal producer.

Thus the marginal cost of production may mean either—

(1) *Cost of production per unit of the marginal output, or*

(2) *Cost of production per unit of the marginal producer.*

12. **Marginal Cost and Average Cost.** Marginal cost is not the same thing as average cost. Look at the following table :—

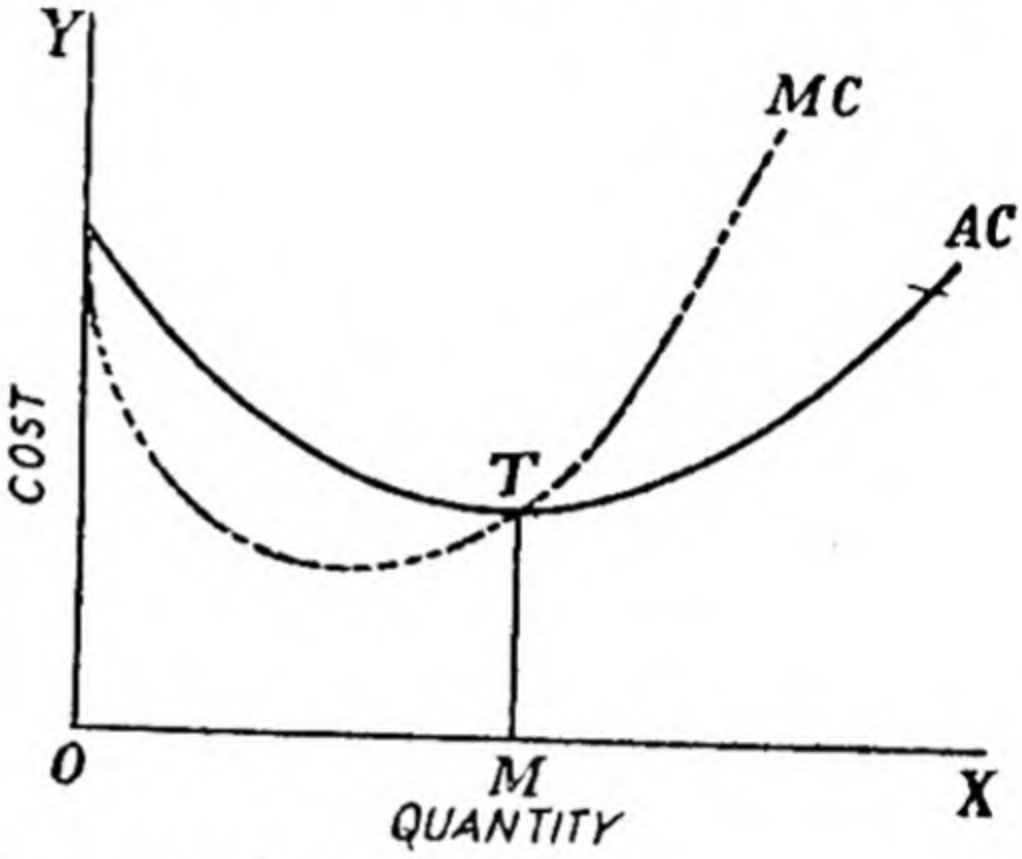
Number of pullovers produced	*Total cost*	*Marginal cost per pullover*	*Average cost per pullover*
	Rs.	*Rs.*	*Rs.*
100	200	2·00	2·00
200	500	3·00	2·50

At first the producer makes 100 pullovers. Then he produces 200, *i.e.*, another 100. The addition to his cost is Rs. 300 which

means Rs. 3 per pullover for each of the second 100. The marginal cost is Rs. 3. But as he spends in all Rs. 500 on 200 pullovers, the average cost is only Rs. 2·50. The average cost is found by dividing the total cost by the number of articles produced. But the marginal cost means the addition made to the total cost in producing an extra quantity. Marginal cost is the extra cost that has to be incurred when producing an extra unit of a commodity, *i.e.*, cost of producing a marginal unit of a firm's product.

The marginal cost (MC) and the average cost AC are shown in the following diagram.

OX and OY are the two axes, along OX is shown the quantity produced and along OY the cost. It will be seen that as output is increased both average cost (AC) and marginal cost (MC) fall but MC is below AC, *i.e.*, marginal cost is less than the average cost. The fall is due to the economies of scale. But beyond a point (M), *i.e.*, when output is expanded too much, both AC and MC start rising and now MC is above AC, *i.e.*, marginal cost is greater than average cost. That is why MC cuts AC from below at its lowest points.



13. **Cost Curves.** Now we represent average fixed cost, average variable cost, average total cost and marginal cost in diagrams. But the diagrams have to be different for short-run and long-run cost curves. In the short run, the firm cannot increase or decrease its *fixed* factors like plant and machinery. It can only increase or decrease its output by hiring more or withdrawing

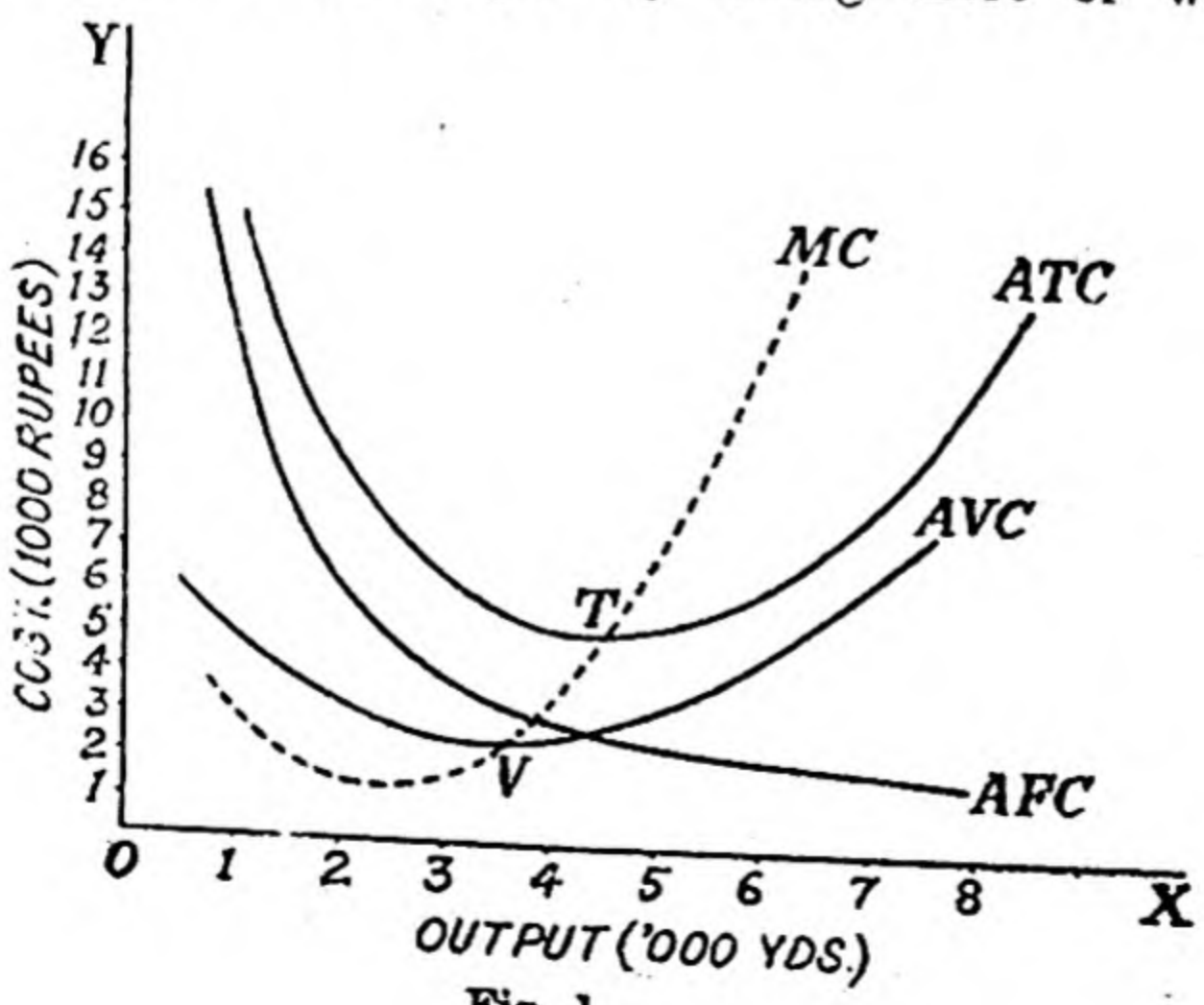


Fig. 1

variable factors like labour and raw material. In the long run, however, even fixed factors can be altered (increased or decreased) as the need may be.

The short run cost curves can be represented as below. OX and OY are the two axes. The output is represented along OX and cost along OY. AFC curve represents average fixed cost. AVC curve represents average variable cost, ATC curve represents average total cost. MC curve represents marginal cost.

It is clear that as output is increased, the cost per unit decreases due to various internal economies. That is why AFC, AVC and ATC all start falling. But if the output is expanded beyond proper limit, diseconomies will result and these costs will go up which is shown by the rising portion of these curves. This is the third stage of the Law of Variable Proportions (discussed in Ch. XIV). It will be seen that AFC continues to fall, it never rises, rather it helps AVC fall too far sometime but after some time AVC starts rising quickly and raises ATC too. MC and AVC fall and rise at the same time. But it is to be carefully noticed that when MC and AVC are falling, MC is below AVC but when they rise, MC is above AVC. When AVC is constant MC is equal to it. In other words MC cuts AVC and ATC at their lowest point.

Now let us draw the long-run cost curves. In this diagram SAC_1, SAC_2, SAC_3, SAC_4, SAC_5, SAC_6 and SAC_7 are short-run curves corresponding to various outputs. The thick curve LAC which is tangent to all short-run cost curves is the long-run average cost curve. It envelops all short-run cost curves and is also called Envelope Curve. It is a U-shaped curve. In fact all cost curves are U-shaped but the long-run cost curve is flatter. The implication of the U-shape is that when output is increased, the cost per unit goes down on account of the various economies of scale. But this is up to a point (T here). If the output is increased beyond this, the long-run average cost starts rising on account of resulting diseconomies.

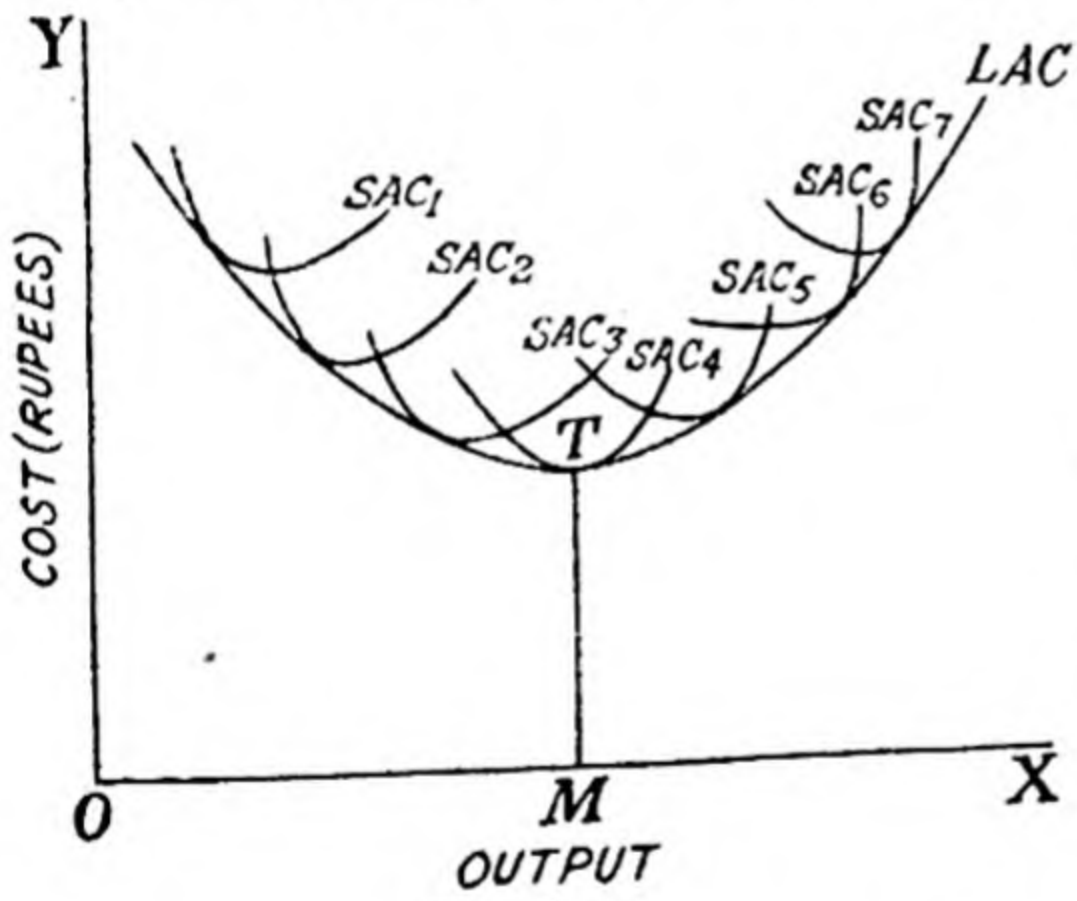
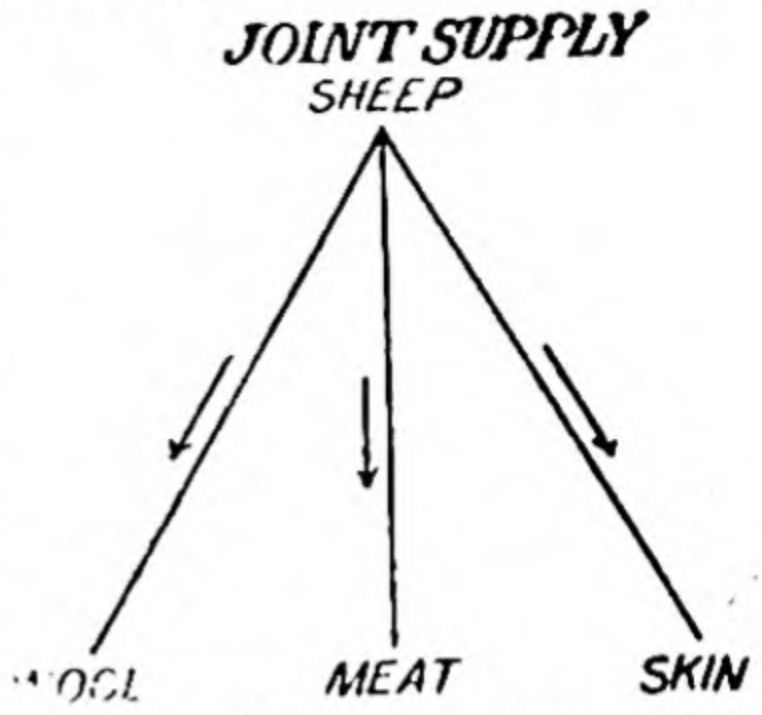


Fig. 2.

14. **Inter-connected Supply.** Just as there are cases of inter-related demand, *e.g.*, joint demand and composite demand, similarly there are cases of inter-related supply, *viz.*, *joint supply* and *composite supply*.

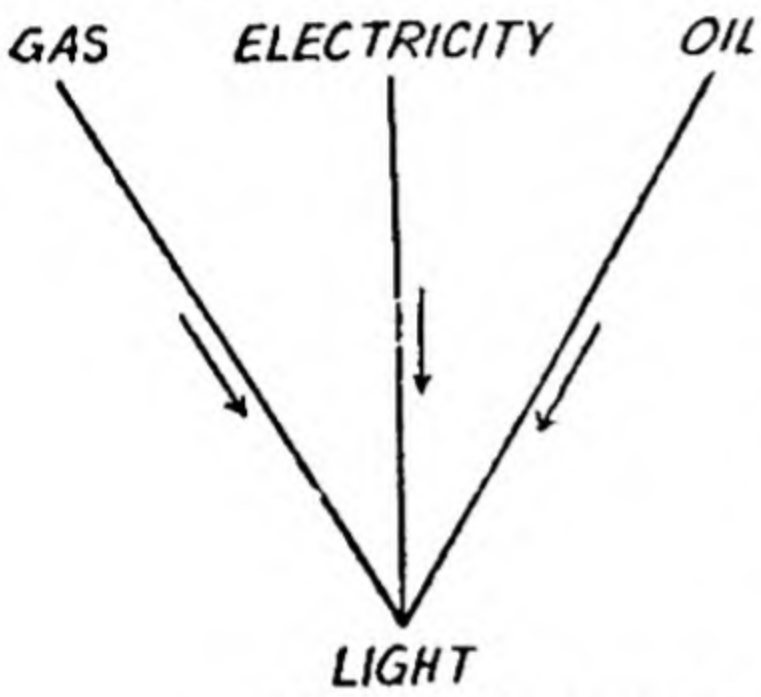
(*a*) *Joint Supply.* Joint supply refers to goods supplied or produced jointly. Some commodities have a common origin and are produced in the same process. Examples are wheat and straw, cotton and cotton seed, wool and mutton, etc. When any one of them is produced, the other is produced automatically. For

instance, when we produce wheat, the straw comes out itself. One is called the main product, *e.g.*, wheat, and the other is called the by-product, *e.g.*, straw.



In some cases the joint products are produced in nearly fixed proportions, *e.g.*, cotton and cotton seed. Their proportions cannot be varied. In other cases, the proportion can be varied. For example, by cross-breeding it has been found possible to bread sheep either for wool or for meat. The quantity of one can be increased at the expense of the other.

(*b*) *Composite Supply.* When there are different sources of supply of a commodity or service, we say that its supply is composed of all these sources. You can get light from electricity, gas, kerosene oil, candles, etc. All these sources go to make up the supply of light. It is a case of composite supply. Wherever there are substitutes or rival sources of supply, the supply is composite. There is composition among them and the most economical source of supply is tapped first. But they also combine and co-operate to satisfy the same need.



WHAT YOU HAVE LEARNT FROM THIS CHAPTER ?

Meaning of Supply. Supply means the quantity offered for sale at a price and at a time.

Supply and Stock. Stock is *potential* supply, *i.e.*, what would be supplied if conditions were favourable, while *supply* means the quantity *actually* offered for sale.

Supply Schedule. It is a table giving quantities offered at different prices.

Law of Supply. Other things remaining the same, as the price of a commodity rises, its supply is extended, and as the price falls, its supply is contracted.

Exceptions. : Supply may not increase or decrease

(1) at an auction when only one article is offered for sale.
(2) if a seller badly needs money, and
(3) when a further heavy rise or fall in price is expected.

Distinction Between Extension and Contraction of Supply on the one hand and Increase or Decrease of Supply on the other. Extension or contraction depends on a change in price ; whereas increase or decrease is independent of price changes.

Extension of supply means that more is offered at a higher price. Increase in supply, on the other hand, means more offered at the same price or the same quantity offered at a lower price. Contraction means less is offered when the price falls. Decrease in supply, on the other hand, means that less is offered at the same price or the same quantity is offered at a higher price.

Elasticity of Supply. When supply is responsive to changes in price, it is called elastic ; but when it cannot be quickly adjusted to demand as reflected in price changes, it is said to be inelastic. Goods which are perishable or the production of which takes a very long time have an inelastic supply.

Causes of Changes in Supply :

(*i*) Natural causes, *e.g.*, rainfall, natural calamities, etc.
(*ii*) Technical progress, *e.g.*, discovery of new materials, new processes, new machines, new use of existing products, etc.
(*iii*) Changes in the prices of factors.
(*iv*) Improvement in the means of transport.
(*v*) Calamities like war and famine.
(*vi*) Deliberate action by the monopolists.
(*vii*) Fiscal policy of the Government.

Force Behind Supply. Supply is ultimately governed by the cost of production.

Expenses of Production and Cost of Production. 'Expenses' mean money costs. Cost of production means sacrifices, efforts, exertion, abstinence, etc., undergone in producing a commodity.

Prime Costs and Supplementary Costs. *Prime costs* mean the cost of material and labour actually used in making a commodity. They naturally vary with the output.

Supplementary costs or overhead charges mean fixed costs like salaries of the establishment, rent, interest, etc. They are constant, whatever the scale of production.

Normally, the price of a commodity must cover both prime and supplementary costs. But it may not do so when there is dumping going on or when business is in the grip of a depression. In such cases, only prime costs may be covered.

Marginal Cost of Production. It means (1) the cost per unit of the marginal output or (2) the cost of production per unit of the marginal firm or marginal producer (whose costs are generally the highest).

Marginal costs are different from average costs.

Joint Supply. When two things are jointly produced, they are in joint supply. They have a common source and joint expenses, *e.g.*, wheat and straw.

Composite Supply. When there are several sources of supply of a commodity, *e.g.*, light from kerosene oil, gas, electricity, etc., it is a case of composite supply.

CAN YOU ANSWER THE FOLLOWING QUESTIONS ?

1. *What do you understand by supply ? Account for changes in supply.*
[See Secs. 1, 2 and 8.]

2. *State Law of Supply. Can you think of any exceptions to the law ?*
[See Sec. 5.]

3. *What do you understand by an increase in supply ? What is the effect of an increase in supply on price in the short as well as in the long period ? Illustrate by diagram.* (*J. & K. 1955*)
[See Sec. 6. Increase in supply means that it is possible to supply larger quantity at the same price. In this case price is not affected. It may also mean that the same quantity will be offered even if the price falls. In this case the price falls. This is in the short period. In the long run, increase in supply must bring down price.]

4. *Distinguish between extension of supply and increase of supply. Illustrate with a diagram.* [See Sec. 6.]

5. *What do you understand by Elasticity ? Mention five articles the supply of which is comparatively inelastic.* [See Sec. 7.]
[Fresh milk, fresh fruit, fresh vegetables, eggs, and ancient works of art have inelastic supply.]

6. *Distinguish between—*
(*a*) *Cost of production and expenses of production.*
(*b*) *Prime costs and supplementary costs.*
(*c*) *Fixed costs and variable costs.*
(*d*) *Marginal costs and average costs.*
(*e*) *Composite supply and joint supply.*
(*f*) *Stock and supply.*
(*a*) See Section 9. (*b*) See Section 10. (*c*) See Section 12.
(*d*) See Section 13. (*e*) See Section 2.

7. *Explain clearly what you understand by marginal cost of production.*
[See Sec. 11.]

EXCHANGE

CHAPTER XVII

MARKETS

Market is not a Mandi

1. **Introduction.** Of the four departments of Economics, we have disposed of Consumption and Production and now we enter upon a study of the third, namely, Exchange. Exchange means buying and selling. We buy what we need, and sell what we can spare. Buying and selling are ordinarily carried on in markets. We shall, therefore, first study markets and then discuss how the prices come to be settled. Then we shall study the mechanism of exchange, *i.e.*, money, credit, banking, international trade, etc. The present chapter is devoted to the study of markets.

2. **What is a Market ?** The term 'Market' needs explaining, as it has got a different meaning in Economics from what it means ordinarily. In every-day language, the term 'market' is used in the sense of a particular locality, or a place where the buyers and sellers of a commodity assemble and strike bargains. The commodity is either displayed or stocked there. The exact Hindustani equivalent for 'market' is *mandi*. Almost every town has a *mandi* and a big city has several of them. A *mandi* encloses a big square with shops all around. The commodity is displayed on the platform in front of the shops or is stocked in the godowns. The sellers of the commodity bring it into the *mandi* in carts from the neighbouring villages. The buyers and their agents, brokers or *dalals*, also reach the place. The bargain is struck in the presence of the buyers and sellers. This is what the term 'market' signifies in the ordinary language.

But in Economics the term 'market' is used in an entirely different sense. Here it has no reference to a particular place. The buyers and sellers need not assemble anywhere. They may be living in distant places. Their coming together is unnecessary. They can do business with the help of the telephone, the telegraph or ordinary post. In this sense, a wheat market does not necessarily mean a *kanak mandi*, where the businessmen assemble to buy and sell wheat but it stands for growers of wheat to whichever place they may belong, and the purchasers of wheat, wherever they may live, if they are in contact with each other. The French economist, Cournot, defines a market thus :

"*Economists understand by the term 'market' not any particular market place in which things are bought and sold but the whole of any region in which buyers and sellers are in such free intercourse with one another that the prices of the same goods tend to equality easily and quickly.*"

This defintion of a market brings out the following essential points :—

(*a*) A market covers a *region*, which may be a district, province, country or even the whole world from which buyers and sellers are drawn, and *not any particular place* where they assemble.

(*b*) There must be *commercial* intercourse among the dealers, *i.e*, buyers and sellers. They must be in touch with one another, so that they are aware of the prices offered or accepted by other buyers and sellers.

(*c*) The *same price* must rule for the *same thing* at the *same time*.

3. Evolution of Markets. In the earliest stages of civilization man lived in a natural state. He ate wild fruits and covered his nakedness with the skins of wild animals. There was no give and take. Wants were limited and simple, and every one was capable of satisfying them himself. For a long time, there was self-sufficiency and no need for any exchange.

But the stage did arrive when man felt that the assistance of his fellow-beings was needed for the satisfaction of his wants. Sometimes he was too ill to collect food, but had a store of skins or hunting weapons which he could exchange for food. Or it happened that of two men, one was an expert in making weapons and the other in hunting. The two would gain if each specialised in what he could do best. Then exchange developed.

But at first, people did not know the use of money and *exchanged goods directly for other goods. This system is called barter.* But it was very inconvenient. It was not easy to find a person who wanted what others could spare and who was willing to spare what others wanted. There was also the difficulty of dividing a commodity like a live animal when it was several times more valuable than the commodity for which it was sought to be exchanged.

It was only with the introduction of money economy that markets in the modern sense arose and developed. We can trace the evolution of markets from two points of view, *viz. geographical* and *functional.*

(A) **Geographical Evolution.** Geographical evolution refers to the increase in the area of the market. From the geographical point of view, the following stages have been observed in the development of markets :—

(*a*) *Family Market.* Here an exchange of goods took place only among the members of a family. Each family was self-sufficient. A member of another family was a foreigner with whom there was no intercourse of any kind.

(*b*) *Local Market.* At this stage, the people living in one locality took part in buying and selling. The locality might be a village or a few hamlets near one another. Exchange was not confined now to the members of one family, but to all people living in the locality. Heavy and bulky articles, for which the freight charges would be too heavy, have still a local market. Moreover, perishable

articles like fish, milk and vegetables have ordinarily only a local market.

(c) *National Market.* In this case, all the inhabitants of a country or a members of nation participate in the buying and selling of a commodity. The boundaries of the market are now as wide as the country itself. Fruits of Kashmir, for instance, travel to Bombay and Calcutta.

(d) *World Market.* In the world market, the people of different countries of the world are in commercial intercourse with one another. A portion of the wheat grown in Australia is consumed in England. Indian manganese is sent abroad, and British cloth is exported to Africa and India. Only such commodities find a world market as are durable and are universally acceptable.

It is not to be supposed that in the new stage, old types of markets disappear. For example, when national markets grow, the local markets do not disappear. All types of markets exist side by side. For some commodities, like fresh milk and vegetables, we have only local markets, and for commodities like cotton, wheat, precious metals, etc., we have world markets.

The factors responsible for geographical evolution are the development of the means of communication and transport and the use of scientific methods of preservation like refrigeration. The motor truck and the railway have carried the mangoes of Hoshiarpur (Punjab) to places like Delhi, a distance of 250 miles nearly. Before that, they had only a local market. The railway vans can carry grapes from Quetta (Pakistan) to distant places. Speedy means of transport have undoubtedly widened the area of the markets.

(B) **Functional Evolution.** Another line of development of the market can be observed in the way the market functions. From this point of view, we may distinguish between the following stages of development :

(a) *Mixed or General Market.* At this stage, traders do not specialise. They deal in all sorts of things. There is one general market for all commodities. It is a mixed market. The same dealers deal in a number of commodities. A village retail store stocks all the articles commonly needed by the residents. It can supply cloth, salt, oil, matches, sugar, flour and what not.

(b) *Specialized Markets.* This is an advanced stage. The traders specialize in the sale of particular commodities or even the particular brands of them. Some deal only in wrist watches, others in clocks. There is a separate market for each commodity like wheat, cotton, gold, and stocks and shares. Some markets are wholesale markets, and one cannot buy goods in small quantities in such markets. For small transactions, there are separate markets called retail markets.

Functional development of markets may also be based on the methods adopted in doing business. These stages are :

(i) *Inspection.* The commodity is actually seen before it is purchased. This is even now necessary in some cases, *e.g.*, in the purchase of a horse or a house.

(*ii*) *Sample.* The next stage is when instead of seeing the whole commodity, the purchaser relies on a sample taken from it. This implies a higher standard of honesty among businessmen. Business by sample will fail if the traders show one thing and sell another.

(*iii*) *Grade.* Another stage comes when the purchaser does not even see the sample. The commodities are graded and numbered. The quality of each grade is well known among businessmen and consumers, *e.g.*, 591 wheat, 376 muslin, D.I. long cloth, etc. An Indian merchant places an order in England for 'Key' brand long cloth. He knows that he will get the thing with which he is already familiar. There is no need of seeing the thing or a sample thereof. But the commodity must be gradable. The extensive use of machinery today turns out standardised articles and facilitates grading.

4. **Law of Market Price.** The definition of the term 'market', which we have studied above, says that there must be such free intercourse between the buyers and the sellers of a commodity that the price tends to equality easily and quickly. From this it is easy to infer the law of market price which is that the *price of any commodity in a market must be the same at the same time.* Different qualities of the commodity must be regarded as separate commodities for this purpose. This law is also called *Law of Indifference.* When the same price prevails in a market, one is indifferent as to from whom one buys and to whom one sells.

5. **A Perfect Market.** Where the law of market price operates, *i.e.*, where the same price rules for the same commodity at the same time, the market is said to be perfect. This will happen when a commodity can be moved quickly from one part of the market to another. "*A market is said to be perfect, when all the potential sellers and buyers are promptly aware of the prices at which transactions take place and all the offers made by other sellers and buyers and when all buyers can purchase from any seller and conversely.*" Only under such conditions will the same price rule for the same commodity at the same time in the market.

The following are the conditions which must be fulfilled before a perfect market can develop :—

(*i*) *Free Competition.* Competition between buyers and buyers on the one hand, sellers and sellers on the other, as well as between buyers and sellers, must be absolutely free. There should be no monopolist either on the buyers' side, or on the side of the sellers. A monopolist is usually in a position to charge different prices from different persons. Only when there is free competition does the same price rule in the entire market.

(*ii*) *Cheap and Efficient Means of Transport and Communication.* If commodities cannot be cheaply and quickly transported from one place to another, different prices might rule in a market. Similarly, in the absence of means of rapid communication like wireless, telegraphy and telephone, different prices may come to rule in different sectors of the same market. But if the means of transport and communication are cheap and efficient, any considerable diffe-

rence between prices can be removed by carrying goods from a region of low prices to that of high prices. This movement of goods will continue till the prices are equalized. In a perfect market all the potential buyers and sellers must be promptly aware of the prices charged and offered. There should be no ignorance about such matters.

(*iii*) *Wide Extent.* It is also necessary that the market for the commodity should be as wide as possible. A limited market is usually an imperfect market. The extent of market depends on the nature of the commodity, whether it is durable or perishable, and the nature of demand for it, whether it is steady or fluctuating. It also depends on several other factors discussed in the section below.

For some commodities the market may be perfect and for others imperfect. For consumers' goods of a perishable nature the market is generally imperfect. For producers' goods like machinery it is perfect. Wholesale markets are generally more perfect than retail markets. A labour market is less perfect, for workers lack mobility. Markets for money, gold, silver, and stocks and shares are perhaps the most perfect. For real estate, the market is less perfect. For second-hand books, the market is imperfect because there is no standard price.

6. **Extent of the Market.** There are several factors which make the markets wide or narrow. Of these the following may be noted :—

(*a*) *Extent of Demand.* If the demand for a commodity is universal and constant, it will have a wide market. In the case of limited or fluctuating demand, the market will be narrow. Naturally a certain type of garment, which is worn only in a particular region, cannot have a wider market.

(*b*) *Portability.* For a wide market, the commodity should have large value in small bulk, *e.g.*, gold, silk, etc., so that it pays to carry it. Bulky and cheap articles like bricks are not portable, and cannot have a wide market. The market for them is a narrow one.

(*c*) *Durability.* If a good is perishable, *e.g.*, fresh fruits and milk, it cannot have a wide market. Only durable articles like gold and those which do not quickly rot, *e.g.*, wheat, can have a wide market. Such commodities can be carried over long distances without deterioration.

(*d*) *Possibility of Sampling and Grading.* Those commodities have a wide market which can be easily graded or sold by sample. In such cases, even foreign customers can buy goods without being deceived. Non-standardised goods cannot have a wide market.

(*e*) *Peace and Security.* Trade between distant places is not possible unless peace and security reign. The size of the market, therefore, depends on the state of law and order in the country. In a disturbed State, the traders in one region will feel great hesitation in entering into trade relations with traders living at a distance.

(*f*) *Fiscal Policy of the Government.* The extent of the market also depends on the policy of the Government. Tariff walls in the shape of import duties, import restrictions or quota system restrict the market. The Government can also ban or limit exports. In this way, the Government policy determines the extent of the market.

7. **Some Specialised Markets.** While discussing the evolution of markets, we said that specialised markets had come into being for most transactions. There is the *money market* whose members are the banks which lend money, and financiers and discount houses which borrow money. The money market is concerned with borrowing and lending.

Foreign Exchange Market. This market is concerned with buying and selling of foreign currencies.

Produce Exchange. This type of market deals in agricultural produce like wheat, cotton and oil-seeds. The members deal in futures, *i.e.*, *satta*, and have also spot transactions, *i.e.*, when deliveries take place on the spot.

Stock Exchange. This is an organisation for the purchase and sale of stocks and shares. Such an organisation is very useful. It enables capital to move from old and decaying industries into new and growing ones. Through the stock exchange, shareholders are enabled to realise cash for their shares in case of need. The ease with which shares can be bought and sold induces investment in new ventures. True value of shares comes to prevail.

8. **Speculation—Its Meaning.** Speculation is somewhat like what is popularly known as *satta*. It is like this. Shares of joint-stock companies and primary commodities like wheat and cotton are bought and sold at current prices, but no actual deliveries take place. The settlement is made at some future date with the sole object of making profits by the difference between the current price and the price at the future date. If the price of wheat is, say, Rs. 10 per maund in May, and a speculator thinks that it will go up to Rs. 15 in November, he will buy one unit[1] or more of it in May, at Rs. 10 per maund, delivery to be taken in November. If his forecast is correct and the price goes up to Rs. 15 per maund in November, he will sell his holding of wheat, and realise a profit of Rs. 5 per maund. This is speculation. The commodity is not actually bought and sold. Only the difference is paid and received.

9. **Kinds of Speculation.** Speculation is of two types—*Legitimate* and *Illegitimate*.

(1) *Legitimate Speculation.* When the speculators proceed in a scientific manner, it is called legitimate speculation. They study the climatic conditions in countries which grow a particular commodity. They also study crop forecasts. Thus, they study the supply situation. In the same manner, they try to estimate the probable demand—possibility of a war, increase in population, etc. Then after carefully studying the necessary data they arrive at a conclu-

1. A unit consists of 100 maunds of wheat.

sion about the likely price. If the price is going to rise, they buy for the future, otherwise they sell out. Only experts can make such scientific study. This kind of speculation is called legitimate speculation.

(2) *Illegitimate Speculation.* But if speculation is indulged in blindly without such a scientific study, it is called illegitimate. It is gambling pure and simple. It is just like tossing a coin in the air. Thus scientific speculation by experts is legitimate but indiscriminate speculation by their blind followers is illegitimate. The activity is the same, only the character of people indulging in it makes the difference.

10. **Advantages of Speculation.** Few people think well of speculation or of *satta* as they call it. A man who indulges in it is condemned by society. They call him a *sattabaz* or a gambler and look down upon him. Condemnation of illegitimate speculation on both economic and moral grounds is justifiable.

Legitimate speculation, however, is useful. There is ample economic justification for this type of speculation. One great advantage is that it makes prices steady by reducing violent fluctuations. Let us see how it does this.

How speculation makes price steady? Let us take the same example again. Suppose I think that in May the present price of wheat, Rs. 10 per maund, will go up very high in November. I enter into a bargain for the purchase of 500 maunds. When I buy, many other people follow my example. The result is that the price begins moving up due to the activities of speculators like myself. Speculators do not buy wheat for personal consumption. Their sole object is to make a profit. When, therefore, November comes, we all sell out. The result of these sales will be to depress the price. Left to itself the price of wheat might have gone up to Rs. 18 per maund or even higher. But because we are all selling and there is more wheat in the market, the price will not rise to such heights. On account of these additional supplies, it may rise only up to Rs. 14 per maund. We had anticipated a big difference between May and November prices. But as a result of our action the difference has been reduced to Rs. 4 per maund only instead of Rs. 8 or more. We have prevented a violent rise in price. We have not been able to stop the prices from rising altogether, but we have narrowed down the range. This is how speculators steady prices. Steady prices are beneficial in several ways :

(1) *Steady prices are useful for consumers.* If prices keep moving up and down the scheme of consumption is upset. The consumers cannot properly map out their expenditure and cannot secure maximum satisfaction from their limited resources. Hence steady prices are good for consumers. They are free to arrange their consumption of commodities without any fear of being upset by changes in prices.

(2) *Steady prices are useful for manufacturers.* Manufacturers are anxious to obtain their supplies of raw materials at steady prices. They have to quote prices of their products months ahead. This quotation is based on the prevailing price of the raw material, but the

material itself has to be purchased later. If, therefore, the price goes up in the meantime, they will be losers. But the existence of a speculative market protects them. The enter into a contract for supplying these goods in the future and protect themselves against losses from price fluctuations. The owner of a flour mill, for instance, undertakes to supply flour to the army at a certain price. Lest wheat should become dear and put him to loss, he enters into a future transaction and purchases wheat for the month when he has to deliver the flour. He thus *covers his contract* and avoids the risk of loss from fluctuations in wheat prices by means of speculation.

(3) *Speculation is useful for society at large.* When speculators begin buying wheat, it is a warning to society that a shortage may be feared. The Government can take timely steps to economise the consumption of wheat and prevent its wasteful use. Rationing may be introduced or the Government may take other suitable steps to control prices.

Hence speculation is very useful to consumers, manufacturers and the society in general through its steadying influence on prices.

11. **Dangers of Speculation and the Remedies.** The dangers of speculation arise from two causes : from its excess and from the ignorance of the speculators.

Excessive speculation is bad. Price movements are overdone. Fluctuations of prices become more violent. Many businessmen are ruined. The market is dislocated, and even *bona fide dealers* come to grief.

Ignorant speculation, or what has been called illegitimate speculation, is dangerous. Instead of having a wholesome influence on prices, it upsets their steady movements. Illegitimate speculators ruin themselves and do a lot of harm to society. Led by mere rumours they are apt to buy when they should sell and sell when they should buy, thus making prices fluctuate violently. Their activities cut at the root of genuine business. Hence speculation, when carried to excess or indulged in blindly as a gamble, dislocates trade and industry, and proves harmful to the community. Speculation is good, but too much speculation is bad. When speculation becomes an end in itself, it is dangerous.

What are the remedies ? Speculation not only ruins individual businessmen but also proves harmful to the economy of the country in a number of ways. It is, therefore, felt necessary to control the activities of speculators. The following are some of the steps that can be taken :—

(*i*) *Legislation.* Anti-speculation laws can be passed so that a curb is put on speculative activities. But we cannot solely rely on laws to check unhealthy speculation. Clever speculators will always be able to find some loopholes in the laws and adopt some devices to evade them.

(*ii*) *Reform of Stock Exchanges.* It is possible to introduce some reforms in stock exchange practices in order to prevent over-speculation. But these reforms can be successful only if the businessmen co-operate wholeheartedly. Such co-operation may not be

always forthcoming. Hence reform of stock exchanges may not prove very effective.

(*iii*) *Vigilant Press.* The press can play an important role in checking speculation by exposing the nefarious activities of the speculators. In this way, strong and healthy public opinion may be created against speculation and speculators.

(*iv*) *Sound Business Morality.* The real remedy against speculation is the building of sound business morality in the country. So long as the business morality remains low not much can be achieved in this direction. Unfortunately, this is the situation that exists in this country at present.

(*v*) *Commercial Intelligence.* Speculative losses can be avoided if the Government places at the disposal of the community correct and up-to-date statistical information. If correct business intelligence is supplied promptly, there will not be much scope for unhealthy speculation.

Speculation, however, cannot be rooted out altogether ; nor is it desirable to do so. What is needed is only a curb on over-trading and unhealthy speculative activities. The above measures will go a long way in achieving this object.

12. **'Bulls' and 'Bears'.** These terms are current among speculators. When price changes, it benefits some speculators, and means a loss to the others. There are some who will gain if the price rises. They are called '*Bulls*'. A bull tosses up his enemy. Those who gain if price comes down are called '*Bears*'. A bear tramples down his enemy. The market is said to be bullish if prices are showing an upward tendency. It is *tezi*. If the prices are coming down, it is bearish or *mandi*.

WHAT YOU HAVE LEARNT FROM THIS CHAPTER

Meaning of the term 'Market.' In Economics, market is not synonymous with *Mandi*. It does not refer to any particular locality or place where the buyers and sellers assemble together ; it rather means the *whole of the region* to which the dealers in a commodity belong.

Evolution of Markets. In the earliest stage of human society, there was no exchange and hence no markets. When exchange did begin, it was by barter. Then came money economy, and exchanges multiplied.

Evolution of markets can be traced from two points of view :

(*a*) *Geographical Evolution* :

1st stage—Family markets ; 2nd stage—Local markets ; 3rd stage—National markets ; and 4th stage—World markets.

At present all stages exist side by side. For some commodities markets are local, for others national and for still others world markets. Geographical development has taken place on account of development in the means of communication and transport and scientific processes like refrigeration.

(*b*) *Functional Evolution* :

1st stage—General or mixed markets and 2nd stage—Specialized markets.

On the basis of the methods of working :

1st stage—inspection ; 2nd stage—sampling ; and 3rd stage—grading.

Law of Market Price. The same price rules for the same quality of a commodity at the same time in a market.

Perfect Market. Where the same price rules for the same commodity at the same time in a market, it is called a perfect market.

Conditions of a perfect market :

(*a*) Free competition.

(*b*) Cheap and efficient means of transport and communication.

(*c*) Wide extent.

Wide Market. *It depends on* :

(*a*) Wide demand for the commodity.

(*b*) Its portability.

(*c*) Its durability.

(*d*) Possibility of its being sampled and graded.

(*e*) Peace and security in the country.

(*f*) Fiscal policy of the Government.

Some Specialized Markets. *Money Market* is concerned with borrowing and lending of money.

Foreign Exchange Market—for buying and selling of foreign exchange or foreign currencies.

Produce Exchange—is concerned with the purchase and sale of agricultural produce.

Stock Exchange—is an organisation for the purchase and sale of stocks and shares.

Advantages of Stock Exchanges:

(*a*) Capital enabled to move from one industry to another.

(*b*) Shareholders are enabled to realise cash for their shares when in need.

(*c*) Investment in new ventures is stimulated.

(*d*) True value of shares comes to be settled.

Speculation.—This means buying and selling at current prices, but the transaction is to be carried out at some future date.

Kinds of Speculation :

(*a*) *Legitimate Speculation*—It refers to transactions on scientific business lines carried on by experts who thoroughly understand market conditions.

(*b*) *Illegitimate Speculation*—It means speculation by blind followers of scientific speculators. It is pure gambling.

Advantages of Speculation :

Speculation steadies prices. It is, therefore, useful for (*a*) consumers, (*b*) producers, and (*c*) the society in general.

Dangers of Speculation :

(*i*) Excessive speculation brings about violent movements in prices.

(*ii*) Illegitimate speculation ruins the speculators, and is harmful to society.

Remedies : Legislation, vigilant press, healthy public opinion, reform of exchanges, prompt commercial intelligence, etc.

'Bulls' and 'Bears' :

'Bulls'—who stand to gain by a rise in prices.

'Bears'—who stand to gain by a fall in prices.

CAN YOU ANSWER THE FOLLOWING QUESTIONS ?

1. *Define market. What factors lead to the rise and extension of market ? Has the extension of market been beneficial to India ?* (*P.U. 1936 ; J. & K. 1953*)

[For definition see section 2.]

[*Factors leading to rise and extension of markets* : Markets arose when population increased, and division of labour came in. The extension of markets was due to development in the means of communication and transport bringing people of distant lands together. Scientific processes like refrigeration, and the development of marketing technique in the form of sampling and grading also worked in the same direction.

For India it has produced both good effects and bad. Good effects have been that producers have got better prices, consumers have been enabled to use commodities produced elsewhere and the standard of living has risen. Territorial division of labour has increased wealth ; exchange of ideas goes along with exchange of goods ; prices have been equalised ; famine relief has become more effective.

The bad effects have been that natural resources have been exploited for the benefit of foreigners. India began specialising in the production of raw materials which is economically unprofitable and ancient Indian industries have been ruined. Prices of goods and raw materials have risen for domestic consumers and manufacturers. It has led to dependence on foreign countries which proves dangerous during a war.]

2. *What is a market ? Discuss the factors which determine the size of a market for different commodities.*

(Utkal Inter. Arts 1959 ; Rajasthan Pre-Univ. 1960)

State giving reasons what you would expect to be the size of a market for bricks, wheat, fresh vegetables, precious metals, milk, Kashmiri apples and shares of the Reserve Bank. *(P.U. 1958)*

Or

Define market. What are the conditions of a wide market ? What is the extent of the market of the following commodities : Mangoes, books written in Hindi, Government of India Securities. *(U.P. Board 1956 ; Saugar 1952)*

[See sections 2 and 6. Mangoes, Kashmiri apples, fresh vegetables and milk being perishable commodities, have a local market or Provincial market ; books written in Hindi have a national market and so also Reserve Bank shares, precious metals and the Government of India Securities ; bricks have a local market.]

3. *What do you mean by market in Economics ? What is the nature of the market for the following :—*

(*a*) *Fresh vegetable,* (*b*) *Wheat* (*c*) *Brick,* (*d*) *Gold.* *(Delhi 1955)*

[See Q. 2 above, (*a*) local market, (*b*) world market, (*c*) local market, and (*d*) world market.]

(*b*) *Fill in the blanks by using one of the words within brackets :*

Gold and silver have.....(national, international) market.

4. *Distinguish between perfect and imperfect market. What are the factors which make a market imperfect ?* [See Sec. 5.] *(Pb. H.S. 1962)*

5. *What is a market ? Explain carefully the conditions which determine the size of a market.* [See Secs. 2 and 6.] *(Delhi H.S. 1959)*

6. *Write a short note on Stock Exchange.* [See Sec. 7.] *(P.U. 1947*

7. *What is speculation ? What are its advantages and disadvantages ?*
[See Secs. 10 and 11.] *(P.U. 1955)*

8. *Distinguish between legitimate and illegitimate speculation. What means would you suggest to prevent illegitimate speculation ?*
[See Secs. 9 and 11.] *(Agra 1947)*

CHAPTER XVIII

PRICE THEORY : PRODUCT PRICING

The two blades of scissors

1. **Market Forms.** Before we discuss the question how price is determined, we must ask the question in what set of circumstances do we want to discuss price determination or price formation ? It is very easy to say that price is determined by demand and supply, the two blades of scissors, but the forces of demand and supply operate differently in different market forms. The first question therefore is in what particular form of market the industry producing the commodity is functioning.

The different market forms depend on the degree of competition prevailing in the market. Broadly speaking, we have the following market forms :—

(*i*) *Pure Competition.* Here all firms in the industry produce the same standard type of the commodity ; that is, the product is homogeneous, say cement. Another condition that there is a large number of buyers and sellers so is that each producer is producing an insignificant portion of the total output so that no individual firm can, by its own action, influence the price. It has to accept the market price as given.

(*ii*) *Perfect Competition.* In additon to the above two conditions of pure competition, several other conditions must be fulfilled to make it perfect competition, *e.g.*, no restrictions on new firms entering and old firms leaving the industry, perfect mobility of labour and capital, perfect knowledge, absence of transport costs, etc. Thus perfect competition is a wider term than pure competition.

(*iii*) *Imperfect Competition.* This is quite the opposite of perfect competition and takes several different forms of which the following are the main forms :—

(*a*) *Monopolistic Competition.* Here the number of firms selling the product is very small and the product is not homogeneous or uniform but differentiated by means of a different label or brand, *e.g.*, different types of toilet articles.

(*b*) *Oligopoly.* Here there are only a few sellers and the product may or may not be differentiated.

(*c*) *Duopoly.* Here there are only two firms in the field supplying the commodity.

(*d*) *Monopoly.* In this case there is only one seller, a firm or a group of firms controlling the supply. Extreme monopoly is absolute monopoly when the control of the monopolist is absolute which is a rare thing.

Thus at one extreme is perfect competition and at the other perfect or absolute monopoly. In between these two extremes are

varying degrees of competition ranging from monopolistic competition—oligopoly, duopoly, and monopoly representing decreasing competition in each subsequent firm.

We first start with perfect competition.

2. **Perfect Competition.** What constitutes perfect competition ? It implies the following things :—

(*i*) *A large number of buyers and sellers.* When there are a large number of buyers and sellers in a market, no one alone can influence the demand or the supply position of the commodity. Hence no single dealer can influence price.

(*ii*) *Homogeneous Commodity.* The commodity to be sold should be of a uniform quality. In this way the same price will tend to prevail in all sectors of the market.

(*iii*) *Freedom of Entry or Exit.* The buyers and sellers should be free to enter or leave the market. This will iron out the irregularities arising out of abnormal gains or abnormal losses. If, for example, there are abnormal profits, more businessmen will enter into the business and their competition will bring down the rate of profit to a normal or reasonable level.

(*iv*) *Perfect Knowledge.* The buyers and sellers should have a perfect knowledge of the market position. If they are ignorant of the prevailing prices, they cannot take advantage of the differences in prices. These differences will continue which means that the competition is imperfect.

(*v*) *Mobility of Factors of Production.* Factors of production should be easily mobile so that adjustments can be made promptly. If the factors cannot move, it will hamper competition.

These are, in short, the implications of perfect competition. As a result of all these influences, under perfect competition the some price tends to rule at the same time in a given market. No individual seller or buyer can influence the price by his own action. Price for both buyers and sellers is a given factor.

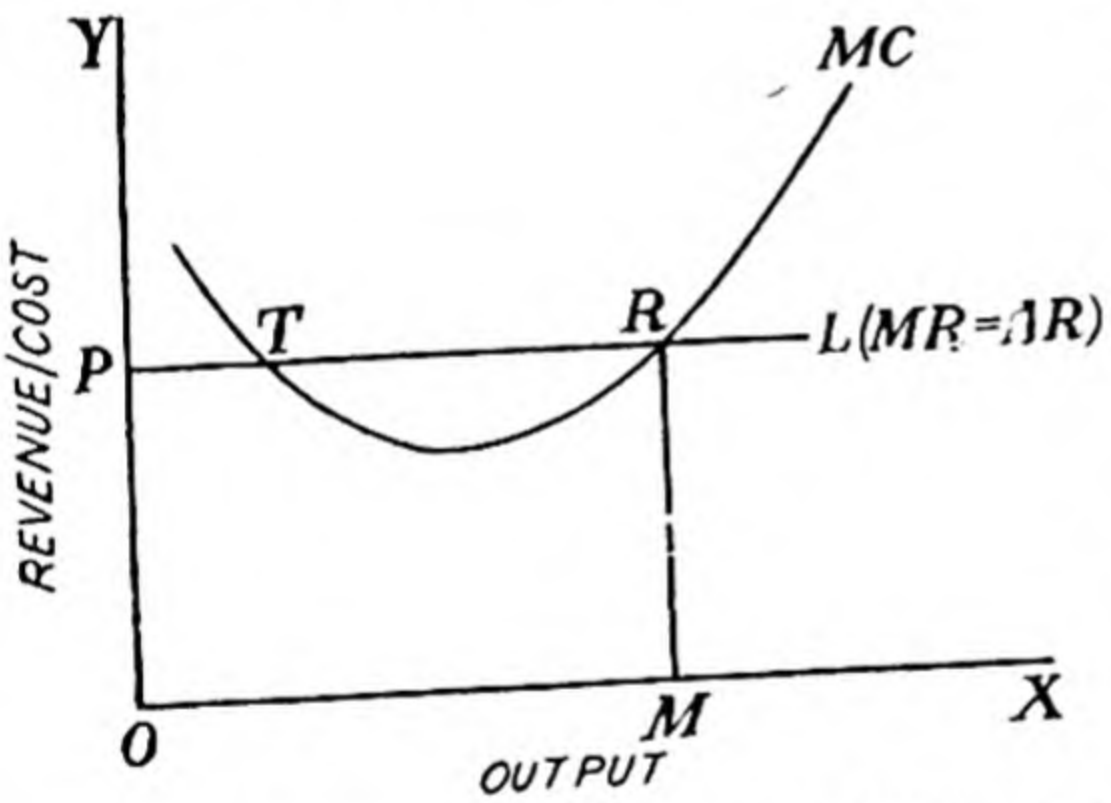
3. **Equilibrium of Firm and of Industry.** Before we study determination of price under perfect competition, it is necessary that the student must have some idea of the equilibrium of the firm and equilibrium of industry under perfect competition. It is the total demand of the consumers and total supply of the commodity of all the firms in the industry that determine the price. But an individual firm has to attain a position of maximum profit on the basis of the prevailing market price, which an individual firm cannot influence and which it must, therefore, accept. The firm will fix an output at which its profit is the maximum and at this point it will be in equilibrium position.

In order to maximise its profits, a firm must constantly compare its cost of production and the revenue or income that it may get. When a firm expands its output, it gets some extra income or marginal revenue by producing an additional unit, but it also incurs some extra cost, *i.e.*, marginal cost. Obviously so long as the extra or marginal revenue is greater than marginal cost, it is to the advantage of the firm to expand the output further. But

expansion cannot go on indefinitely ; soon the diseconomies will occur and the marginal cost may overcome marginal revenue. Here is the point of aggregate maximum profit and beyond this point the aggregate profit will be less. In other words, at the point of equilibrium marginal cost (MC)=marginal revenue (MR), *i.e.*, where marginal revenue (MR) is equal to marginal cost (MC), the firm is in equilibrium. Since under perfect competition price (AR)=MR, hence in equilibrium MR=MC=AR.

Suppose the firm is producing an output at which marginal cost is greater than marginal revenue or income the firm is undergoing a loss on the additional unit ; it cannot be in equilibrium ; it must reduce its output so that marginal cost becomes equal to marginal revenue ; similarly if the marginal cost is less than marginal revenue, then also there will be no equilibrium. The firm will gain if it produces more till the marginal cost becomes equal to marginal revenue. It is only then that the firm will be in a position of rest or balance and its aggregate profit will be the maximum. In the long run, for a perfectly competitive firm to be in equilibrium, besides maginal cost being equal to marginal revenue, the price must also be equal to average cost (Price=MC=AC).

Equilibrium of the firm under perfect competition can be represented as in the adjoining diagram. OX and OY are the two axes ; output is represented along OX and revenue cost along OY. MC is the marginal cost curve and PL is the average revenue (AR) and marginal revenue (MR) curve. Since under competition, the demand for the individual firm is perfectly elastic, the demand curve (*i.e.*, average revenue curve) is represented by a horizontal straight line. The marginal revenue (MR) is equal to price (*i.e.*, AR). Hence MR and AR are the same ; they coincide. This firm is in equilibrium at OM, output at OP (=RM) price. Here MR=MC ; hence the firm is making maximum profit. Here MC cuts MR from below. We know under perfect competition MC=Price (*i.e.*, AR). Hence the firm is under equilibrium when two conditions are fulfilled : (*i*) MC=MR=AR and (*ii*) MC curve cuts the MR curve from below.



A new curve AR (average revenue) has been introduced here. The average revenue of the firm depends on the demand price which the purchaser is prepared to pay ; hence average revenue is the same as demand ; AR and DD are the same thing. This firm is in equilibrium at OM output and BM price (B is a point on the AR (or price) curve.

What about the equilibrium of an industry ? An industry is equilibrium when it has rather a tendency to expand nor a

tendency to contract so that, there is no inducement for any new firms to enter it nor for the existing firms to leave it. This will happen when all the firms in the industry are just making normal profits, neither more nor less. Normal profits represent the level of profits just sufficient to induce the individual firms to stay in the industry. Also it is necessary that for an industry to be in equilibrium all the individual firms in it should be in equilibrium, *i.e.*, they are equating marginal revenue with marginal cost.

An industry will be earning normal profit if the price (AR) is equal to average cost (AC). If the price is higher, then obviously more than normal profits are being made and new firms will be attracted to the industry. If, on the other hand, price is less than the average cost, then profits are less than the normal and some firms will leave the industry. In both these cases, clearly the industry is not in equilibrium. It will be in equilibrium when AR=AC.

Thus two conditions are necessary for equilibrium in industry : (*i*) MR=MC for all firms and (*ii*) AR=MC in the industry.

It is rare that an industry can attain full equilibrium in the short run. Only in the long run it is possible for an industry to attain full equilibrium, for the economic factors must have free and full scope for adjustment.

4. Determination of Price under Perfect Competition. So many problems in Economics are linked with demand and supply that a cynic might easily suggest that we should catch a parrot, teach him the two words 'demand' and 'supply' and the parrot will be able to give answers to all economic questions. The answer may possibly be correct, but the parrot would hardly understand the significance of these words. The student of Economics must not merely repeat parrot-like these two words, but he must also understand them. He should be able to explain the forces which lie behind demand and supply, and how they act and react. Price under conditions of free competition is determined by the interaction of these forces. Let us now consider the sides of demand and supply separately to understand the actual determination of price.

Demand Side. Effective demand is not mere desire to possess a good, but it is desire backed by ability and willingness to pay for it. It also takes into consideration the price at which the goods are selling, and the period of time during which the demand is to be met.

Thus there are buyers who demand a commodity. That buyer only will be able to buy it who can offer the highest price. If others want to have the commodity, they must also pay the same price. As a result of competition among buyers, one price thus comes to be offered.

On the side of buyers, the law of demand price operates. If price rises, demand contracts, and less urgent wants of the poorer or less keen buyers will remain unsatisfied. On the other hand, if price falls demand will extend.

In pursuance of the law of diminishing utility, a purchaser can be induced to buy more only at a lower price. The consumer will buy at a price which he thinks is just worth his while to pay for the

commodity. This point, we know, is the point of marginal utility. Hence we say that *so far as the demand side is concerned, it is the marginal utility to the purchaser which indicates the price.*

It is not correct to say that marginal utility fixes or determines price, because marginal utility is itself governed by price. If price falls, marginal utility will also fall, and *vice versa.* We can only say that price measures marginal utility or that marginal utility and price coincide. *Thus, on the demand side, price tends to equal marginal utility as measured in money.*

Supply Side. A similar analysis has also to be made of the forces operating on the supply side. The quantity which immediately influences price is not the stock of the commodity in existence, but the quantity actually offered for sale.

Just as there is competition between buyers and buyers, similarly there is competition between sellers and sellers. That seller will be able to sell who is prepared to accept the lowest price. So long as his supply is not exhausted, his price will rule the market. If any other seller wishes to sell, he must also sell at this very price. When his supply is finished and some demand is still unsatisfied, a higher price will become effective. Hence as a result of competition between sellers and sellers, one price comes to prevail.

Supply too is elastic. In accordance with the law of supply, more will be offered at a higher price than at a lower price. If the price is not high enough, those sellers who do not urgently need money will not sell.

Just as the buyer will buy at a price which he thinks just worth his while, *i.e.*, the price measures his marginal utility, in the same manner, the seller also considers whether it is worth his while to sell at a certain price. He must look to his total costs. The price must compensate him fully, *i.e.*, cover both his prime and supplementary costs. Temporarily, he may sell cheap and even incur a loss, but he cannot go on doing this indefinitely. His total cost must be covered in the long run. It is the cost per unit of the marginal firm or marginal output that has a determining influence. This is called marginal cost of production.

From the side of supply it is the average cost of the marginal firm and the marginal cost of the average firm that determine the price in the market.

But it is wrong to say that the marginal cost of production governs price, for the position of the margin itself depends on price. We can only say that the price *approximates* to marginal cost of production.

It is well to remember that under perfect competition for an individual firm or producer, the price in the market is fixed or given ; he cannot alter it ; he must accept it. But he will so adjust his output that the prevailing market price is equated to his marginal cost. He will also equate marginal cost with marginal revenue in order to maximise his aggregate profit.

To sum up, "From the side of Demand the price of an article tends to equal the marginal utility or the estimate of

the marginal purchaser, while from the side of supply, it tends to equal the marginal cost of production or the costs incurred by the marginal firm. The point of coincidence between marginal utility and the marginal cost, both as measured in terms of money indicates the price."—(*Silverman*)

Or simply, we can say that, *at any given moment*, **the price corresponds to marginal utility ?** *In the long run* **it tends to approximate to marginal cost of production.** *This is what is called the theory of value.*

5. **Equilibrium between Demand and Supply.** In the previous section, we analysed the forces operating on the side of demand and on the side of supply. The price in the market is the result of an equilibrium between these two forces. That price will be stable at which these forces are properly balanced or are in equilibrium. Equilibrium is the point at which equal quantities of goods are placed in the two pans of a pair of scales. Let us see how the forces of demand and supply act and react to reach the point of equilibrium.

Let us consider the following demand schedule for wheat in the market and its supply schedule :—

Demand for Wheat (*mds.*)	*Price per md.*, *Rs.*	*Wheat Supply* (*mds.*)
8,000	35	90,000
12,000	30	75,000
17,000	25	60,000
24,000	20	45,000
35,000	15	35,000
45,000	12	25,000
53,000	10	20,000

At Rs. 35 per md. the sellers are prepared to sell 90,000 mds. but the buyers are willing to buy 8,000. Obviously, demand and supply are not in equilibrium at this price. The supply is greater than the demand. The price must fall. It will go on falling till we reach a price where the demand for wheat and its supply are equal.

Take the other extreme. At Rs. 10 per md. the buyers want to buy 55,000 mds., but the sellers offer 20,000. Again, there is dis-equilibrium. The demand is greater than the supply, and the price must rise. It will go on rising till we reach a point at which the demand and supply are equal.

The price at which the same quantity is demanded and the same is supplied is Rs. 15 per md. Here there is an equilibrium between the two forces. Till the equilibrium is reached the price must either move up or come down. But at this point, the price has come to stay. This is how interaction of the forces of demand and supply determines the price.

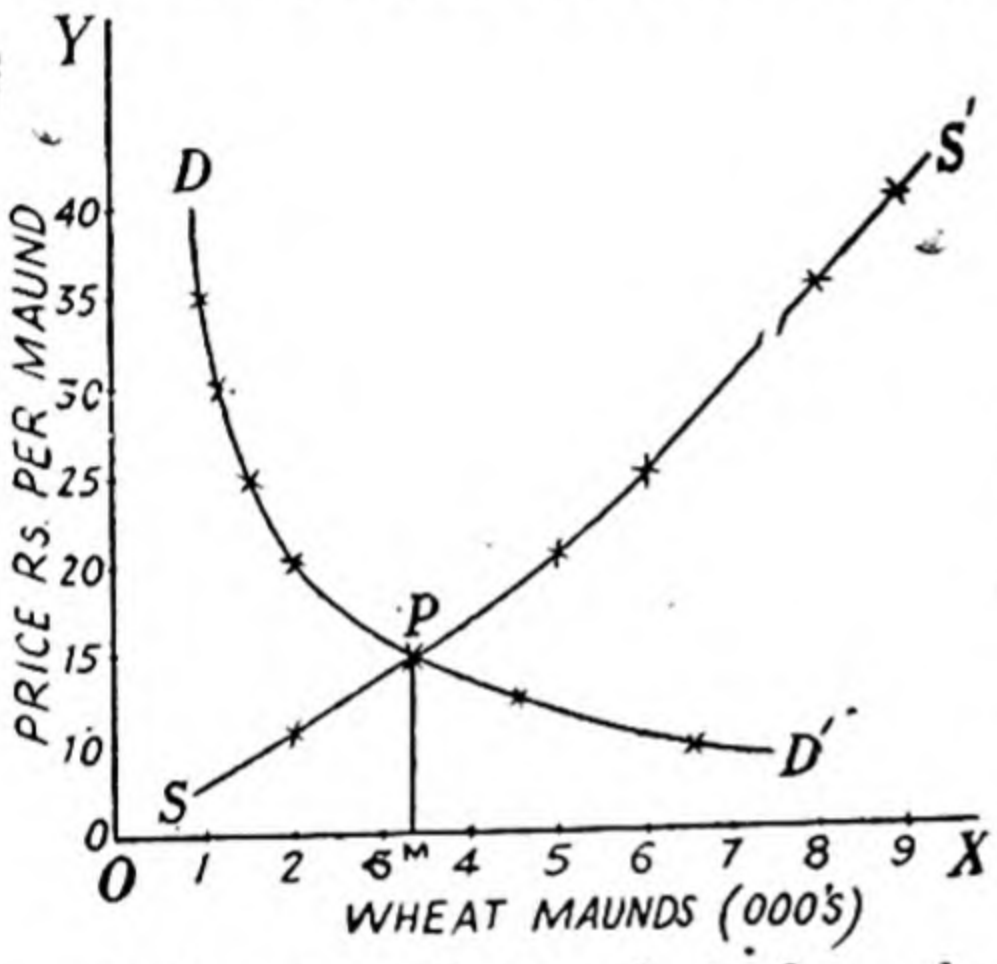
The buyers who are just induced to buy at Rs. 15 per md. are the *marginal purchasers* ; they would not have purchased, if the price were even a bit higher. This price is changed from all the purchasers irrespective of individual utilities. The differences in the individual circumstances of the purchasers will be reflected not in the different prices paid but in the different quantities purchased. For

example, a rich man would buy more than a poor man till his marginal utility comes down to the same level.

The seller who is just induced to sell at Rs. 15 per md. and who would not have sold if the price were less is the *marginal producer*. The cost which he was just induced to incur when the price was Rs. 15 per md. is the marginal cost. At Rs. 15 per md. marginal utility and the marginal costs coincide and there is the equilibrium. The price at which demand and supply are equal is known as *equilibrium price* and the quantity demanded and supplied is called the *equilibrium amount*.

Diagrammatic Representation of Equilibrium

Quantities of wheat are measured along OX and price along OY. DD′ is the demand curve and SS′ is the supply curve. They intersect at P. Rs. 15 per md. is the equilibrium price, for at this price, the same quantity is demanded and supplied, *i.e.*, 35,000 mds.



It is not demand *alone* which determines price nor supply *alone* which does it. Price is determined by *both* demand and supply. It is the equilibrium between the forces of demand and supply which make a certain price to prevail in a market. Sometimes the influence of demand is greater and at other times that of supply is greater. But the influence of both is exerted in the formation of the price.

Dr. Marshall compares demand and supply to the two blades of a pair of scissors. Both are needed for cutting the paper. At one time, it may seem that only one blade is moving and does the cutting, but it does so because the other blade is there. Thus demand alone may seem to determine price sometimes, but supply is also there.

6. **Relation between Demand, Supply and Price.** If demand increases, price rises, and *vice versa ;* so demand seems to be the cause of price. But if price increases, demand decreases ; so it also looks as if price is the cause of the change in demand.

In the same manner, if supply increases price falls ; thus supply affects price. But if price falls then the sellers are willing to sell less ; hence price affects supply.

If demand increases, price rises which brings forth a larger supply. Thus demand through price influences supply. But if supply increases, price falls which stimulates demand. Hence a change in supply influences demand through price.

From the above, it is quite clear that the *relation between demand, supply and price is not of cause and effect but of mutual causation*. They are inter-dependent ; one influences the other and in

its turn is influenced by it. They are like three balls lying in a cup and we cannot say which supports which.

7. **Importance of Time Element in Theory of Value.** We have been discussing the theory of value, which states that the determination of value is a question of demand and supply. The price comes to settle at a level where the marginal utility to the purchaser coincides with the marginal cost of production to the producer. This is the point of equilibrium between the forces of demand and the forces of supply. But it takes *time* for the equilibrium to be attained.

On the basis of time, we may distinguish four broad types of equilibrium prices :

(1) Market price ;
(2) Short-period price or sub-normal price ;
(3) Long-period price or normal price ; and
(4) Secular price embodying changes occurring in a generation or so.

The importance of the time element lies in this that the price which comes to prevail depends on the time allowed for the forces of demand and supply to adjust themselves.

Suppose demand for blazer cloth of a particular type increases all of a sudden in a market, say Delhi. Let us study the effect of this increase in demand on its price in a day, in a month, in a year or two and in a generation. The equilibrium price will be obviously different in all the four cases.

(*i*) In the *short period* of a day, supply means the stock of blazer cloth on hand or in sight. It cannot be increased at a short notice. The price will be settled by the marginal utility to consumers for this cloth. When demand has increased, the price will shoot up very high.

(*ii*) Given more time, the merchants of Delhi will obtain blazer cloth from Bombay, Calcutta or elsewhere. This will increase the supply and tend to depress the price to a certain extent. But if the demand still remains unsatisfied, the price will not go down to its previous level. In this period, too, which may be called the *short-period*, marginal utility still plays an important part in the determination of price as the supply is comparatively fixed.

(*iii*) The *longer period* (a year or two in this case) is called a *normal period*. In such a period, supply means what can be produced by new looms which can themselves be profitably produced and put to use. Thus more blazer cloth will be manufactured on new and better looms. The supplementary cost being spread over a larger output will bring down the cost per unit and permanently bring down the price of blazer cloth in Delhi.

During this long period, the normal price will be influenced by the marginal cost of production and not the demand as that is known and allowed for.

(*iv*) The secular period is long enough to allow changes caused by the growth of knowledge, of population, of capital, of technique

and of standards of living to adjust themselves. The changing conditions of demand and supply from one generation to another have ample time to settle down. It is possible that prices will go down still further as a result of the introduction of new labour saving devices and a general improvement in the methods of production.

Thus it is obvious that price depends on the period with reference to which we want to know it. The shorter the period the greater is the influence of demand on price, and the longer the period, the greater the influence of supply. It is possible that if demand for a commodity increases immediately the price may rise, but in the long period, it may fall if the industry is subject to the law of increasing returns. It will rise in the long period if the industry is subject to diminishing returns and remain constant, if it is subject to constant returns. Herein lies the significance of the time element in the theory of value.

8. **Difference between the Short-period (Sub-normal) Price and the Long.period (Normal) Price.** *Short-period Price. In the short-period, sufficient time is not given to the forces of supply to adjust themselves to the changed conditions on the side of demand.* If the demand has increased, the producers will try to meet the extra demand by overworking the *existing factors* of production. They make the labourers work overtime, put back to use discarded tools and machinery, pastpone scrapping the old machinery, hurriedly buy materials, and so on. All this will mean higher costs. If there were time enough for the supply of factors to be increased, the cost of production would be different.

But if, on the other hand, the demand decreases, the producers will remain passive, as there is no time for the factors to be withdrawn from that industry. They will continue where they are and remain under-employed. In the short-period, therefore, supply cannot be contracted and the price must fall when demand has fallen off.

The short period is the period of transition. The conditions have not become normal. They are sub-normal. A price which results from such a temporary equilibrium of demand and supply is called the short-period price. In the short-period, the influence of demand on price is greater than that of supply.

Long-period Price. In the long period, however, conditions are different. There is ample time for supply to be adjusted to demand. More factors of production will be brought into the industry if the demand has increased ; and some factors will be withdrawn if the demand has decreased permanently. The phenomena of over-production or under-production will have disappeared. The temporary changes will have completely worked themselves out. There will be an entirely new equilibrium under the new conditions of demand and supply. The resultant price is called the Normal Price. Whether the price is high or low as compared with the market price (*i.e.*, price at a given moment) or sub-normal price (*i.e.*, price during the short period) will depend on the law of production which operates in that industry. We shall presently discuss the influence of the laws of returns on the normal price. In the long period, supply will exert greater influence on price than demand.

What is a long period or a short period depends on the nature of the industry, and the extent to which factors of production are mobile. For industries, one or two years may be a long period and for others a short one. For one industry, five years may be a long period and for another 10 years, and so on. The real test to know the exact answer is to pose the question : "How long will the forces of supply take to adjust themselves to changed conditions of demand ?" If the answer is 10 years, any period equal to or longer than this is long and a period less than this is short.

9. **Distinction between Market Price and Normal Price.** Like the distinction between short-period and long-period price, the distinction between market price and normal price also brings out the importance of the time element in the theory of value.

We may note the following points of difference between market price and normal price :—

(1) Market price is the result of a temporary equilibrium between demand and supply on any particular day or at any particular moment. Normal price is the outcome of a long-period equilibrium.

(2) Market price is more influenced by demand, and normal price by supply or cost of production.

(3) Market price is affected by temporary causes and passing events, whereas normal price is governed by permanent or persistent causes. In the long run, the temporary causes work themselves out or neutralise one another. The market price of milk, for example, is influenced by temporary factors like festivals and cattle fair. During the month of *shradhas*, there is greater demand for milk, and its price goes up. On the other hand, if there is a cattle fair, the supply of milk is temporasrily increased in that locality and its price falls. Any change in the supply brings about a change in the market price.

(4) Market price changes from day to day, even from hour to hour. But normal price is more stable. The market price tends to return to the normal price after the temporary change in supply or demand has worked itself out. Normal price is the centre round which the market price oscillates.

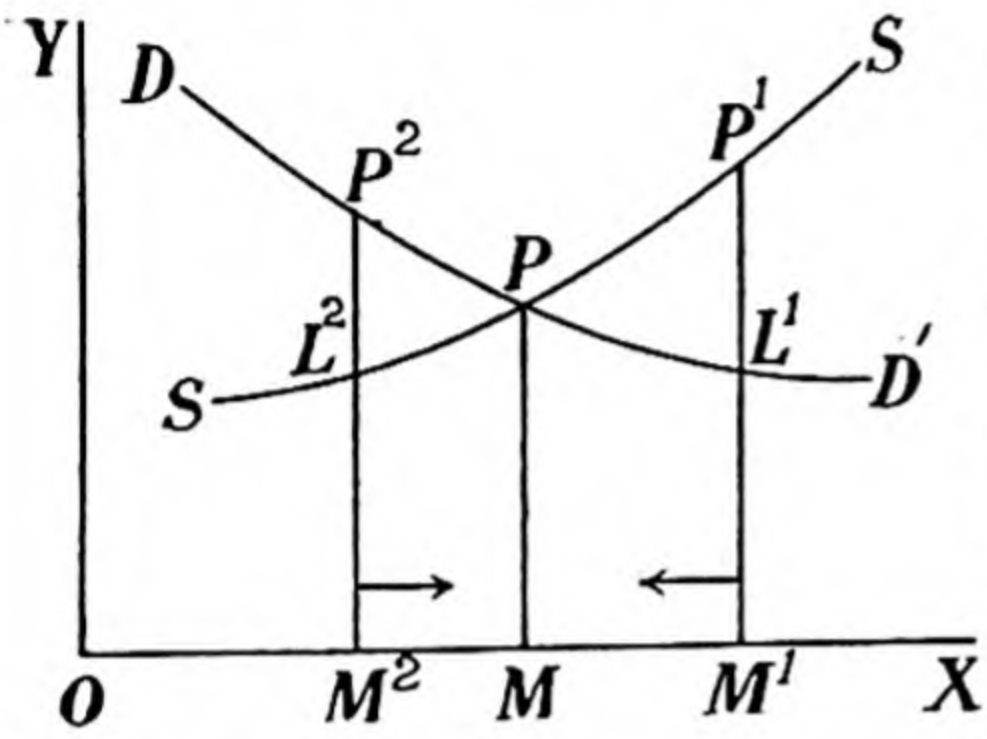
(5) Market price is the actual price that prevails at a given moment. Transactions actually take place at this price. It is a reality. Normal price, on the other hand, is a hypothetical concept. It never actually comes to prevail. It is what is *likely* to be the price or what would be the price if the conditions were normal. We expect this price to rule when normal conditions are restored. But when that time comes, the ruling price will be called the market price. The normal price will recede further and further like a mirage. It belongs to the realm of expectations. Market price is like sea-water, always heaving up or down, never at rest. And yet we say water keeps its level. Normal price resembles that level of the sea where its water would stand if there were no waves.

(6) A normal price is intimately linked up with the cost of production. Hence only those goods which can be reproduced can have normal price. Non-reproducible goods can have no normal price ;

on the other hand, all goods whether reproducible or irreproducible, have a market price.

Let us now illustrate the idea of normal or long-period price with the help of a diagram. Measure quantities along OX and prices along OY. The demand curve is DD′ and the supply curve SS′.

PM is the normal price to which the market prices P^1M^1 and P^2M^2 tend to return every time they depart from the normal. For



OM^1 quantity, the sellers want to have the price P^1M^1, while the buyers want to pay only L^1M^1 according to its marginal utility to them. The sellers then incur a loss of P^1L^1 and contract the supply from OM^1 towards OM; P^1M^1 thus tends to travel back towards PM. For OM^2 quantity, the sellers are prepared to accept the price L^2M^2 while the buyers offer P^2M^2. The sellers thus gain an extraordinary profit of P^2L^2, and extend the quantity offered for sale from OM^2 towards OM. The price thus tends to travel forward towards PM, the long period equilibrium price.

As stated before, the tendency for market price to travel towards the normal price is always present, though actually the normal may never be reached, and, in course of time, the normal itself may change through changes in habits, fashions and incomes.

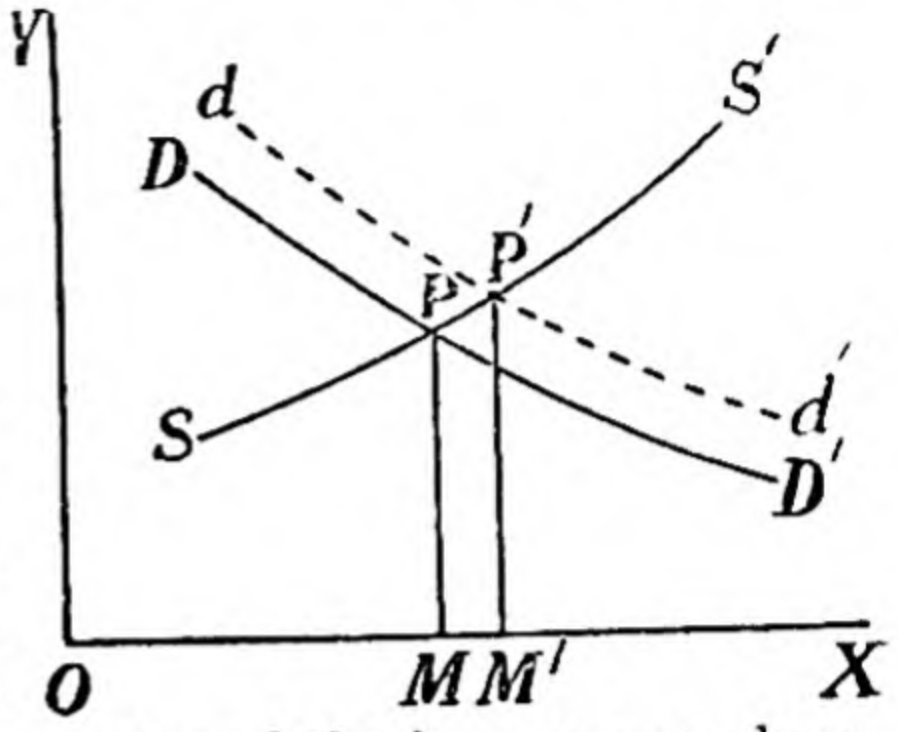
10. **Influence of the Law of Returns on Price Formation.** The influence of the laws of returns brings out clearly the importance of the time element in the theory of value. The sale on which a commodity is produced affects its cost of production. But during a very short period, the scale cannot be changed and hence cost of production remains unaffected. Thus cost of production, in the very short period, can have no influence on market price. The laws of returns can exert influence only in the long run, and can, therefore, affect only the normal price.

Let us suppose that the demand for a commodity increases. The market price, *i.e.*, the price at the moment, must rise. The producer will increase the supply to take advantage of the rise. But we cannot be sure about the normal price, *i.e.*, the price in the long run. In order to find out what will happen to the price in the long run. we must know the particular law of return to which the industry is subject.

(*i*) Suppose the industry which produces that commodity is subject to the law of diminishing returns, *e.g.*, coal. Now when demand has increased, the price of coal will rise. The producer will increase the supply to take advantage of this rise. The scale of production will increase. But, because the law of diminishing returns prevails in the industry, the larger the output the higher will be its cost of production. Thus the additional supplies are obtained at a higher cost. This means that price in the long run will be

higher. The normal price will rise. This will be the case with all agricultural products like wheat, rice, sugar-cane, etc., and the products of other extractive industries, *e.g.*, mining and fishing.

Let us illustrate it diagrammatically. The curve SS′ shows diminishing returns (or increasing costs) when more coal is produced. The rise in demand is shown by the new (dotted) curve *dd′* in place of the old DD′.



The old equilibrium price PM shifts to a new one PM′ as a result of increased demand.

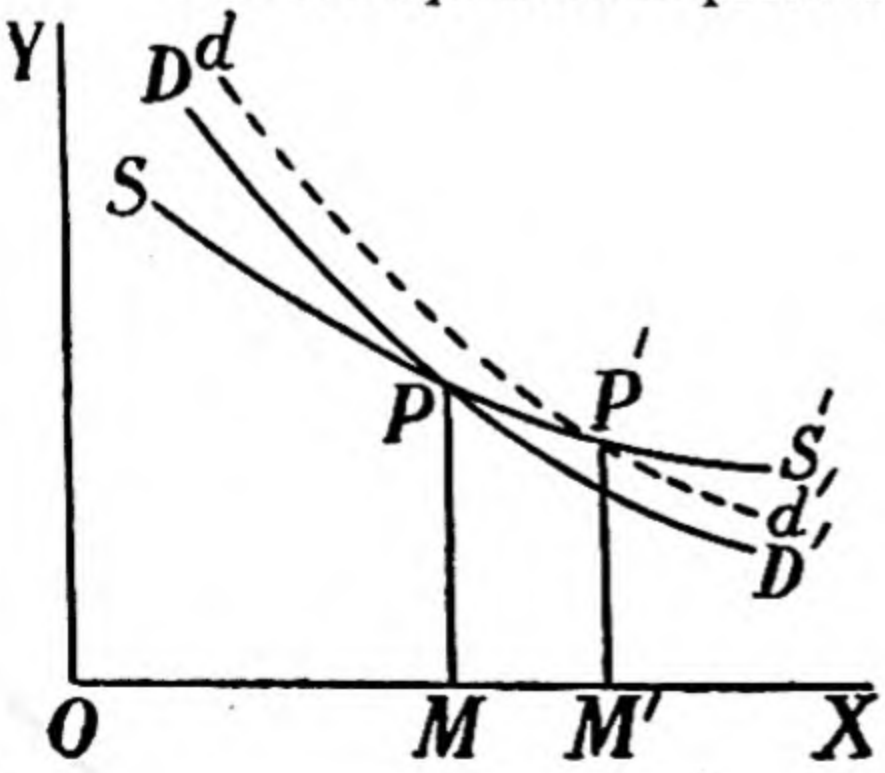
If demand for coal increases the price will immediately rise. Ultimately the price will rise still more, for the increased production will be obtained at a higher cost. This is due to the law of diminishing returns, for the more you produce the more is the cost, and the less you produce, the less is the cost. In the above diagram, the old price was PM for quantity OM and it rises to P′M′ when OM′ is demanded.

In the same manner, it can be easily shown that a decrease in demand for coal will reduce the price much more. This is so because reduced production shall be obtained at a lower cost when the law of diminishing returns operates.

(*ii*) But suppose the industry is subject to the law of increasing returns, *e.g.*, cloth. Suppose the demand for cloth increases due to a rise in the standard of living or increase in population. The increase in demand means higher price ; the higher price leads to production on a large scale. The larger the scale, the lower the cost on account of the law of increasing returns in cloth. When therefore demand has increased permanently, the normal price will fall. This will happen in the case of all manufactured and machine-made goods like cars, cycles, soap, biscuits, fountain pens, radio-sets, etc.

This change can be illustrated with the help of a diagram. The curve SS′ shows that cloth is manufactured under the law of decreasing cost or increasing returns. The cost falls with increased production. The rise in demand is shown by the new (dotted) curve *dd′*.

The old equilibrium price was PM but with the rise in demand to *dd′*, the price falls to P′M′, the new equilibrium price.

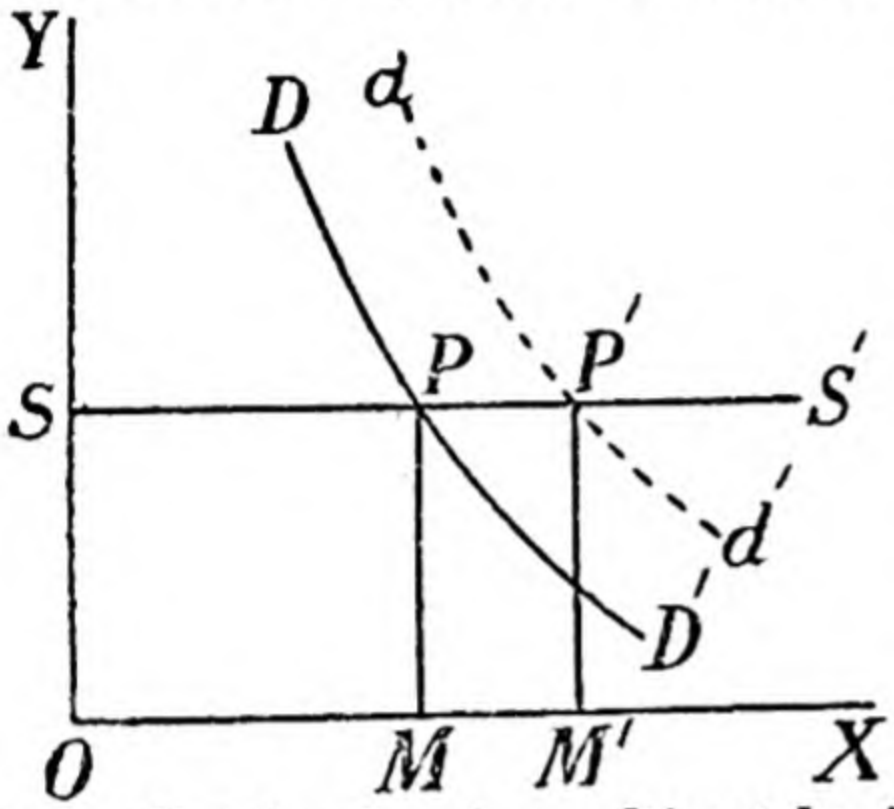


In the same manner, a little thinking will show that if the demand for a commodity, the production of which is subject to the law of increasing returns, falls, normal price will rise as reduced production will be obtained at a higher cost per unit.

(*iii*) In case the industry is subject to the law of constant returns, the cost of production

remains the same whatever the scale of production. The change in demand will no doubt lead to a change in supply. The scale of production will be altered, but the cost per unit will remain the same. Such a condition does not persist for any length of time and occurs only when the laws of increasing and decreasing returns are equally balanced. In such cases, therefore, for a period of time the normal price remains unchanged.

To illustrate diagrammatically let us suppose the curve SS′ represents the production of a commodity like wheat under the law of constant returns for a period when the tendency toward diminishing returns is checked by improved methods. DD′ is the old demand curve, while the rise in demand is shown by the dotted curve *dd′*



The rise in demand does not affect the price. The old price PM is equal to the new price P′M′.

We may thus conclude that if demand increases, price will immediately rise but ultimately it will rise, fall or remain constant according as the industry is subject to the law of diminishing returns, increasing returns or constant returns respectively.

In case of decrease in demand, the effect on the normal price will be the opposite.

This is how the laws of returns influence price. They cannot influence market price, *i.e.*, price at any given moment. They can only affect normal price, *i.e.*, price in the long run.

11. **Determination of the Price of Non-reproducible Goods.** On the price of goods that cannot be reproduced, the cost of production has no influence either immediately or in the long run. Here marginal utility to the consumer is the sole deciding factor. The highest limit on the price is fixed by the marginal utility to the purchaser, and the lowest by the marginal utility to the seller himself. The actual price will be determined by competition among the purchasers. The paintings of old masters, Shakespeare's manuscripts and other such things are included in this category.

12. **Price of Perishable Articles**. The supply of perishable articles like fish, fresh milk, fruits and vegetables cannot be withheld from the market. Whatever supply has reached the market must be disposed of. The actual price in the market will depend on the state of demand. If demand has fallen off, the price will rule very low, and *vice versa*. Here marginal utility is the determining factor. The price must be low enough to clear the whole supply.

We have been so far discussing the determination of prices of independent and separate commodities. In the real world, however, most of the commodities are inter-connected or inter-related. We shall now consider such cases.

13. **Price in Joint Demand.** Several things are required in combination with others to make a final product. To make a car, many materials are required. The car is the final product which is wanted by the consumers. Its price will be determined by the demand for it and the supply thereof. But how will the price of each of the materials required to make the car be determined ? These things are not wanted by the consumers for their own sake. Therefore, they have no utility for the consumers as such. Their marginal utility, therefore, has nothing to do with their prices. It is only the marginal utility of the final product that counts. But we can say that the price of the final product must, in the long run, cover the supply prices of these materials (*i.e.*, the prices at which they are being offered). Each material will be used up to the point where its price coincides with its marginal cost of production.

Thus the price of jointly demanded goods is determined by the marginal utility of the final product (e.g., the car) and this in the long run must cover the supply prices of the jointly demanded goods, i.e. the goods required for producing it.

14. **Price in Composite Demand.** A commodity is said to have a composite demand when it has several uses. For example, coal can be used for heating, cooking, etc. The demand for coal is composed of the demand for all its various uses. Most articles serve more than one purpose, and have, therefore, composite demand.

The price, in such cases, does not depend on the use to which the commodity is put. Coal will be sold at the same price whatever the use to which it is put. The price at any moment will depend on its marginal utility to the purchaser and in the long run it must cover its marginal cost of production. In other words, the price is determined according to the commonly accepted theory of value. Each purchaser will decide to which use it is worth his while to put it. That will depend on the price. If coal is very dear, it may be used for cooking and not for heating. If water is scarce in a place and is near, it will not be used lavishly for bathing and sprinkling on roads.

The marginal utility of the commodity in a composite demand tends to be the same for all uses to which it is being put. If it is not the same, it will move into that use in which the marginal utility is higher. This will continue till the marginal utility is equalised. According to the law of substitution and equl-marginal utility, the possessor of a commodity gets maximum satisfaction from its use only if the marginal utility in every use is the same.

Thus the price of a commodity in composite demand is determined by its marginal utility in all its various uses ; and in the long run it must be high enough to cover its marginal cost of production.

15. **Price in Joint Supply.** Certain commodities are joined on the supply side. They have a common cost of production, *e.g.*, wheat and straw. But they have independent markets. Thus each of these is sold in a separate market. *The price of each depends on its marginal utility to the purchaser. But the total amount recovered from the sale of the two commodities (e.g., wheat and straw) must in the long run cover the marginal cost of production of both taken together.*

What happens if the demand for one of the joint products increases ? Let us illustrate from wheat and straw. If the demand for wheat increases, its price will rise. More wheat will be produced to take advantage of the higher price. But when wheat is produced, straw is produced along with it automatically. The supply of straw also increases, while demand for it has not increased. Therefore, the price of straw will fall. Thus we find that if the price of one of the joint products increases, that of the other product falls. But the rise in the price of the one must be sufficient to make up for the loss from the sale of the other, so that the total of the two prices is equal to the joint cost of production.

Where the proportions of the two joint products can be varied, it may be possible to ascertain the separate cost of production of each. By cross-breeding, it has been found possible to breed wool-yielding sheep or mutton-yielding sheep. The extra cost incurred to rear the marinos (wool-yielding sheep) is the cost of producing extra wool. This is the marginal cost of wool. In the same way, the marginal cost of mutton can also be found. *When separate costs have been so calculated the joint products can be treated as independent commodities, and the price of each will be determined according to the ordinary theory of value. This means that the market price of each will be determined according to the demand and supply at a given moment, and the normal price must cover the marginal cost of production.* In this case, the change in the price of one of the joint products will not affect the price of the other.

16. **Price in Composite Supply.** When any one of a number of goods can satisfy a want, they are said to constitute a composite supply. Light can be had from gas, electricity, kerosene oil, etc. A hot drink may mean hot milk, tea, coffee or cocoa. These are cases of composite supply.

Such things are more or less substitutes though they are not exactly similar. Although one cannot completely take the place of another, yet, *if need be*, one thing can, to some extent, serve the purpose of another. Thus, though their marginal utilities are not exactly equal, yet they also do not greatly differ. Therefore, their prices too move together.

The price of such things will be determined by their total supply (*i.e., supply of all similar goods*) *in relation to the total demand. The price of each, in the long run, must, however, correspond to its marginal cost of production.*

Any change in the price of one such thing is reflected in the change of another. If the price of tea goes up, the demand for coffee will increase, and its price will also go up. *Their prices move in sympathy with each other.*

17. **Price Under Monopoly.** So far we have studied price determination under conditions of perfect competition. What happens if there is monopoly ?

Under monopoly conditions, too, there is bound to be interac between the forces of demand and supply. But there is this differe that the supply is not free to adjust itself to demand. It is und the control of the monopolist. A monopolist is the sole producer

a product which has no closely competing substitutes. In other words, the cross-elasticity of demand between the product of the monopolist and the product of the closest rival must be very low, *i.e.*, the product of a rival cannot take the place of the monopolised product. Monopolist is a single producer of the commodity and he can easily influence the price by changing his supply. Under perfect competition, because there is a large number of producers, the supply of each constitutes only a small portion of the total supply. Hence under perfect competition, no one seller can influence price by changing his own supply. On the other hand, the monopolist can influence the price.

There is another difference between monopoly price and competitive price. When there is perfect competition, the demand for the product of an individual producer is perfectly elastic at the ruling price. This demand is represented by a horizontal straight line parallel to the X-axis. Also, marginal revenue (MR)=Price, *i.e.*, average revenue (AR). These two curves coincide. This is not so in monopoly ; the demand for the monopolised product is not perfectly elastic (there being practically no substitutes), hence demand or price curve AR falls to the right and MR curve is always below it.

Being in control of the supply, the monopolist can (*a*) either fix the price, and offer to supply the quantity demanded at that price ; or (*b*) he can fix the supply, and then let price be determined by demand in relation to the supply fixed by him. But he cannot both fix the price and also force the people to buy a pre-determined quantity at that price. He can only do one of these two things, *i.e.*, either fix the price or fix the supply.

The monopolist has one aim, *viz.*, to get maximum net profit (monopoly net revenue). In order to achieve this aim, he will have to make a careful study of the conditions of demand and supply relating to his product.

On the demand side, he will consider whether the demand for the commodity is elastic or inelastic. In the case of elastic demand, small fall in price is likely to stimulate demand. He will, therefore, lower the price, and sell more to obtain a large net profit on the turnover. If, however, the demand is inelastic, and the people must buy the commodity whatever the price, the monopolist can charge a high price without affecting the demand.

On the supply side, the monopolist must know whether the industry is subject to the law of diminishing, increasing or constant returns. If the law of diminishing returns operates the more he produces, the greater is the cost. He will, therefore, produce a smaller quantity. And if the demand happens to be inelastic, he will fix a high price. In case, however, the law of increasing returns operates, the more he produces, the less is the cost. He will be induced to produce more, and charge a low price, thus gaining on the turnover.

How much will the monopolist produce ? As the monopolist increases the scale of production, his costs start going up after a certain point is reached. Every additional output means additional

expense. But it also means additional income. He will go on producing more and more so long as the marginal revenue (*i.e.*, additional income) is greater than the marginal (additional) cost. He will stop *where the marginal revenue equals marginal cost.* At this point his net profit will be the maximum and the output will be the optimum output.

Monopoly price is not necessarily a high price. It may sometimes be even lower than the price under competition, because the monopolist is saved the expense of advertisement. Besides, he gains from the usual economies resulting from large-scale production. It is not necessary that the monopolist should always charge the highest possible price. He is afraid of public opinion, of Government interference and of substitutes being adopted for the commodity he produces. *Thus the monopoly price is not necessarily a high price. But it generally is.* He cannot help exploiting his monopolistic position and charging a high price.

A monopolist, however, is in a position to charge different prices from different persons and in different areas and this is a serious drawback of the monopoly. This is called *price discrimination.*

18. **Competition and Monopoly Compared.** In a summary way, we can compare the competitive price-output equilibrium and monopoly price-output equilibrium. In both MR=MC ; but there are important differences. For instance

(*i*) Under perfect competition MR=AR (*i.e.*, price) at every level of output. The two curves MR and AR coincide in a horizontal straight line. Under monopoly, MR is less than AR (average revenue *i.e.*, price) at all levels of output.

(*ii*) In perfect competition MC=MR=AR ; but under monopoly, theprice charged is above the marginal cost. Both MR and MC are less than AR (*i.e.*, price).

(*iii*) Under competition, a firm reaches equilibrium at the lowest point of average cost (AC), but under monopoly at the point of equilibrium (*i.e.*, where MR=MC), AC is still declining and has not reached the minimum.

(*iv*) Under perfect competition, a firm attains equilibrium only when MC curve is rising at or near the equilibrium output ; but under monopoly, equilibrium is possible whether MC is rising, falling or constant. Monopoly equilibrium is not possible when both MC and MR are falling and MC is falling more steeply than MR .

(*v*) A firm can earn supernormal profits under competition only in the short run and not in the long run when they are competed away. But supernormal profits can persist under monopoly even in the long run.

(*vi*) Monopolist can restrict output and raise price. Hence monopoly price is generally higher than price under competition.

19. **Monopolistic Competition.** In the real world, we neither find perfect competition, nor monopoly. These extreme positions are rare. Actually there is monopolistic competition which is one of the firms that imperfect competition takes. Generally, neither the number of firms producing a product is too large (as in perfect competition), nor is it almost one (as in monopoly). There are a large number of firms—but not too large.

Further, the commodity produced by these firms is not 'identical' but is a bit 'differentiated'. Take the case of sewing machines. There are a large number of firms each producing a machine of a different brand—Singer, Usha, Kamla, Shan, Rita, etc. All these are sewing machines, but are differentiated from one another by their respective labels. Similarly we find tooth-pastes, fountain pen inks, razor blades, face creams, face powders, etc., of various brands.

Due to these two characteristics of the present-day market, neither the conditions of perfect competition nor the conditions of monopoly are fulfilled. But still there is a keen competition among the producers of these differentiated products. Each one keeps an eye on the price-output policies followed by the others. This situation is called 'monopolistic competition' or 'imperfect competition.' It is monopolistic because each brand is itself a product and is produced by a single firm ; there is 'competition' in the sense that the other brands are so similar and there is a keen rivalry among the producers ; 'imperfect' in the sense that price can be influenced by individual actions. Advertisement or high-pressure salesmanship is a prominent feature of the market under monopolistic competition. This results in a keen competition among the producers so that price determination under monopolistic competition should be more like perfect competition than monopoly.

Since competition is imperfect, one price does not rule throughout the market. On the other hand, the market is split up into sectors in each of which the differentiated product rules supreme. In each sector, the producer has a clientele of his own. The consumers have an irrational preference for the product on account of its superiority, real or imaginary. In each sector, therefore, conditions are somewhat like monopoly and the price is determined accordingly.

20. **Functions of Price.** Price performs a very important function in the economic system. As a matter of fact, it is price which makes the working of the economic system so smooth. Under competitive capitalism, there is no central authority directing the economic forces. The price is the only directing force.

We may mention the following functions which price performs :

(1) Price control consumption. If the price goes up, it is a signal for the consumers to reduce consumption. The commodity will then be put only to more urgent uses.

(2) Price directs production. If the price is low, it warns the producers ; if it is high, it stimulates production.

(3) It adjusts the existing supply to demand. If a commodity is in short supply, the price will go up and reduce demand so that

the demand is equated to supply. If stocks have been accumulated the price will fall making demand to come up to the level of the supply. The supply is cleared.

(4) Prices of factors indicate the most remunerative channels for them to flow into. They thus find the most profitable employment.

Thus price is a powerful regulator of all economic activity in a capitalist economy.

WHAT YOU HAVE LEARNT FROM THIS CHAPTER

Perfect Competition. Perfect competition implies the following things:

(*i*) A large number of buyers and sellers.

(*ii*) Homogeneous commodity.

(*iii*) Freedom of entry or exit for the businessmen.

(*iv*) Perfect knowledge of market conditions.

(*v*) Mobility of factors of production.

Price Determination under Competition. Price is determined by the nteraction of the forces of demand and supply. On the demand side, it tends to equal the marginal utility to the purchaser, and on the supply side, to the marginal cost of production. Price at any given moment (*i.e.*, market price) is determined by the equilibrium between demand and supply at that moment, and the price in the long run (*i.e.*, normal price) approximates to marginal cost of production.

Relation Between Demand, Supply and Price. The relation between these three is not one of cause and effect, but of mutual causation. They are like three balls lying in a cup each supporting the others.

Time Element in the Theory of Value. In the theory of value, time factor is of great importance. The equilibrium between demand and supply refers to a certain period of time. The equilibrium price will be different if different periods of time are allowed for the forces of demand and supply to adjust themselves. The shorter the period, the greater is the influence of demand and longer the period, the greater is the influence of supply. For example, if demand increases, the immediate effect will be to raise the price but ultimately the price may rise, fall or remain constant according as the industry is subject to the law of diminishing, increasing or constant returns. Time factor is responsible for the different results.

Market Price and Normal Price :

(*i*) Market price is the actual price prevailing at any given moment, but normal price is the price expected to prevail in the long run.

(*ii*) Market price fluctuates from time to time but normal price is more stable. Normal price is the centre round which the market price oscillates.

(*iii*) Market price is affected by temporary factors, normal price is the result of more permanent causes.

(*iv*) Market price is influenced by demand, normal price by cost of production.

(*v*) Only reproducible goods have a normal price.

Influence of the Laws of Returns. The laws of returns affect the cost of production. They can, therefore, produce effect only in the long period. It is due to the laws of returns that ultimately the price rises, falls or remains constant although the immediate effect of increase in demand is to raise the price.

Price of non-reproducible Goods. In such cases, demand exerts the greatest influence. The maximum limit to price is laid by the marginal utility to the purchaser, and the minimum by the marginal utility to the seller.

Perishable Articles. In this case also, the supply is relatively inelastic. Price in the market will, therefore, depend on the extent of demand at the moment. It must be low enough to clear the whole supply.

Price in Joint Demand. The demand price of the final product must, in the long run, cover the marginal supply prices of the constituent commodities.

Price in Composite Demand. The price is determined according to the ordinary theory of value, *i.e.*, by the marginal utility to the purchaser, and the marginal cost of production to the producer. Each purchaser will decide for himself to which use he should put the commodity. This will depend on the level at which the price rules.

Price of Joint Products or Joint Supply. If the proportion cannot be varied, and, therefore, separate marginal costs cannot be found, then the sum-total of the prices of the two must, in the long run, cover the joint marginal cost of the products. If the price of one falls, that of the other must rise to make up for the loss. If, however, the proportion can be varied, then it is possible to find separate cost of production of each of the joint products. The price of each will then be determined as if they were independent commodities, *i.e.*, by the interaction of demand and supply.

Price in Composite Supply. The price will be determined by the relation between the total demand and total supply of all such alternative sources of supply. The price of the one that is used, must, in the long run, cover the marginal cost. Although they are not exact substitutes, yet their prices move together.

Price under Monopoly. The monopolist can either fix the price or fix the supply ; he cannot fix both. He wants to get maximum net revenue. If the demand is inelastic, he will charge a high price ; if the demand is elastic, he will gain by lowering the price. If the commodity is produced under the law of increasing returns, he will produce a large quantity, and keep the price low ; if under the law of diminishing returns, he will curtail production and charge a high price. That output will bring him the maximum net monopoly profit at which marginal revenue equals marginal cost.

Monopolistic or Imperfect Competition. In the real world, the number of firms is neither very large nor too small. In fact, there is a large number but not very large—of firms producing a commodity. The commodity too is not homogeneous. It is differentiated. Thus there is neither perfect competition nor monopoly in the real world. It is the monopolistic or imperfect competition which is the rule. Each differentiated product has a clientele of its own. The seller in this sector of the market holds a monopolistic position and the determination of price is like that of monopoly price.

Functions of Price :

(*i*) It controls consumption.

(*ii*) It directs production.

(*iii*) It adjusts supply to demand.

(*iv*) Prices of factors indicate their most remunerative channels of employment.

CAN YOU ANSWER THE FOLLOWING QUESTIONS ?

1. *What is a market ? How is the price determined in markets in India ? Illustrate geographically.* *(P. U. 1953)*

[For the definition of market see Chapter XVII, Section 2.

Prices in markets in India too are determined by the interaction of the forces of demand and supply. But competition, which brings into operation the forces of demand and supply, is not free on account of lack of adequate means of transport and communication and the ignorance and poverty of the peasants who are the suppliers of the commodities. Existence of numerous intermediaries, fraudulent practices on the part of middlemen, many unauthorised deductions, absence of regulated markets, false weights and measures used, the practice of settling price by the *dalals* under cover of a cloth, etc., prevent the seller from getting a fair price.]

2. *What determines the price of* **Banarsi Langra** *in town X under perfect competition ? How does it differ from the market price for cloth of a good variety in the same town under similar conditions ?* *(Punjab Inter. 1960)*

3. *What is meant by market price ? "Demand and supply determine market price." Explain and also give a diagram.* *(P. U. Board 1958)*

Or

Discuss the part played by (a) demand, (b) supply in determining the market price of a commodity. [See Sec. 3]

4. *What is market price ? How is it determined under conditions of perfect competition ? Explain with the help of a table of figures and a diagram.*

5. *Describe and discuss the factors that cause day-to-day fluctuations in the market price of a commodity.* *(J. & K. 1957)*

[It is due to changes in demand and supply. Read Section 3.]

6. *What is competition ? Show how price is determined under perfect competition ?* [See Sec, 4] *(Gauhati 1957 ; Banaras 1938)*

Or

How is the competitive market price determined ? *(Delhi H. S. 1960)*

7. *What determines the short-period and the long-period values under perfect competition ?* [See Sec. 8.] *(Calcutta 1955)*

Or

Illustrate with diagrams the distinction between short-period and long-period price. [See Secs. 8 and 10.] *(Ajmer Board 1958)*

8. *Distinguish between market price and normal price. Explain with the help of a diagram how market price is determined.*

[See Secs. 4 and 9.] *(J. & K. 1958 ; P.U. 1959 ; Bombay 1953 ; Delhi Prep. 1961)*

Or

What is meant by Market Price ? How does it differ from Normal Price ? Explain briefly the Marginal Theory of price. *(P.U. Pre-Univ. 1962)*

9. *How is competitive price determined ?* *(Delhi H. S. 1962)*

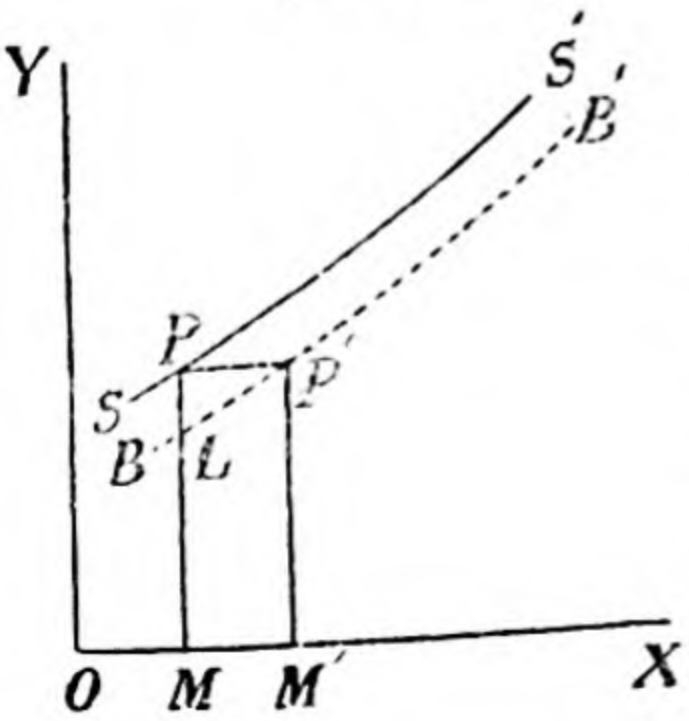
10. *What is a normal price ? How is it determined ? Illustrate with the help of a diagram.* *(Pb. Univ. H.S. 1961 Suppl ; Utkal Inter. Arts 1960)*

[See Sec. 8. The normal price is determined by the marginal cost of production including both prime cost and supplementary cost. It tends to approximate to the marginal cost of the average firm and the average cost of the marginal firm.]

11. *Discuss the influence of demand ine determining (a) market value and (b) normal value.* *(Utkal Inter Arts 1959 Suppl.)*

12. *Explain carefully with the help of a diagram how demand, supply and price are mutually dependent.* [See Sec. 5.] *(Ajmer 1955 : P.U. 193 9)*

13. *Discuss the importance of time element in th theory of value.* *(Delhi 1936)*
[See Sec. 6.]



14. *What do you understand by an increase in supply ? What is the effect of an increase in supply on price ? Illustrate by a diagram.* [See Sec. 6. Ch. XVI.] *(P. U. 1955)*

[Increase in supply means that more is offered at the same price, *i.e.*, OM′ instead of OM at the price P′M′ (=PM). This is evident from this diagram. The increase in supply is represented by the dotted curve BB′. It may also mean that the same quantity is offered at a lower price. Formerly, OM was offered at PM price but when supply has increased as indicated by the dotted curve, OM is offered at a lower price LM.]

15. What is the difference between the 'short-period price' and the 'long-period price ? Discuss the influence of the laws of return on price. Illustrate by diagrams. (*P.U. 1959 Suppl.*) [See Secs. 8 and 10.]

16. Do you agree that price is always determined by the cost of production ? Discuss.

17. Discuss the effects of a permanent increase of demand for a commodity on its price in the long period. Use diagrams to illustrate your answer. (*Ajmer 1953*) [See Sec. 10.]

18. How is normal price determined ? Can you account for the paradox that sometimes a rise in the normal demand for a commodity may lead to a fall in price ? (*J. & K. 1953*) [See Secs. 7 and 9 (ii).]

19. What is 'normal price' ? How is it determined under conditions of perfect competition ? Explain with the help of a diagram. (*P.U. H.S. Suppl. 1961 ; P. U. Pre. Univ. 1962*)

20. What is influence of cost of production in the determination of (a) market price and (b) normal price ? (*Utkal Inter Arts 1958 Suppl.*)

21. How is value determined in the following cases :—joint demand, composite demand, joint supply and composite supply ? [See Secs. 13 and 16.]

22. What is monopoly ? Explain how price is determined under monopoly. (*Bihar 1953 ; C.U. 1953 ; Delhi Prep. 1962*) [See Sec. 17.]

Or

Explain by illustration how a monopolist fixes the price of his product. (*Gauhati 1958*) [See Sec. 17.]

23. Describe the characteristic features of a market under conditions of perfect competition. (*Utkal Inter Arts 1958*) [See Sec 2.]

24. Fill in the blanks by using one of the words in brackets :—

(*i*) *Price under monopoly is generally..... (higher; lower).*

(*ii*) *The longer the period, the greater is the influence of ..... (demand, supply) on the price of the commodity.*

CHAPTER XIX

PRICE THEORY : FACTOR PRICING

"Sharing the loaf"

1. **Introduction.** In the previous chapter, we studied one aspect of the Price Theory, *viz.*, the product pricing (*i.e.*, determination of prices of products or goods). In this chapter, we shall take up the second aspect of the Price Theory, *viz.*, factor pricing, *i.e.*, the pricing of the *services* of the factors of production, *i.e.*, their rewards *e.g.*, wages (the reward of labour), rent (the reward of land), interest (reward of capital) and profit (reward of the entrepreneur). It may again be pointed out that in factor pricing, we do not discuss the determination of the prices of the factors themselves but of their services ; it is not the factors which are being bought and sold but only their services.

2. **What is Distribution ?** *Ages ago.* Throw your imagination a few thousand years back. Man lived in jungles or caves. His needs were few and he satisfied them wholly by his own efforts. He ate what he gathered—fruit, root or leaves. There was no joint production and the question of distribution did not arise. No doubt there are still a few people in the world with whom distribution is not a problem. But they are savages, and not very many of them—Bushman in Australia or Africa.

Today. With civilized people today things are different. The simplicity of production is gone. Visit any factory in your neighbourhood. The lesson will go home. Machines and buildings belong to different people. Labour is provided by a different set, while the organisers, who have selected the site and put up the factory, are different. The scale of production too has changed. People do not produce for themselves but for others. The various factors of production—land, labour, capital and organisation - are not furnished by one person. Quite a large number of people co-operate in producing a commodity. This is why the problem of distribution is so complex.

Distribution here means the sharing of the national dividend among the various factors of production (*i.e.*, land, labour, capital and organisation) which have contributed to the work of production.

3. **An Interesting Problem.** Each one of us is the producer of a service, a utility or a good. The problem of distribution is, therefore, very interesting for all of us. Every one expects a reward and wants more of it. He thinks he can have more only if his neighbour has less of it. Somehow he has come to believe that there is a loaf of bread of a limited size and each one of us can have an extra slice only at the expense of others. In a way he is ght.

If it were possible to produce enough of all kinds of goods without working, the economic system would work beautifully. Everything would be free and everyone would be able to have all he wanted. There would be no disputes, no fights. "That would be true Ram Rajya," you say. Unfortunately no such state of bliss is near. Rid yourself of such empty dreams. In the real world, productive resources are scarce while population and human wants are increasing. Joint efforts of all factors—human and material—are needed even to satisfy these wants partially. These efforts result in a pool of goods called the '*National Dividend*'. Out of this pool every contributor gets his share. The landlord gets his rent, the labourer his wage, the capitalist his interest, and the organiser his profits. The total net produce in the pool is sold for money. We then find the entrepreneur, with the money got from the sale of the produced wealth, surrounded by the various contributors to the pool, each shouting for his share.

Three questions face us at this stage :

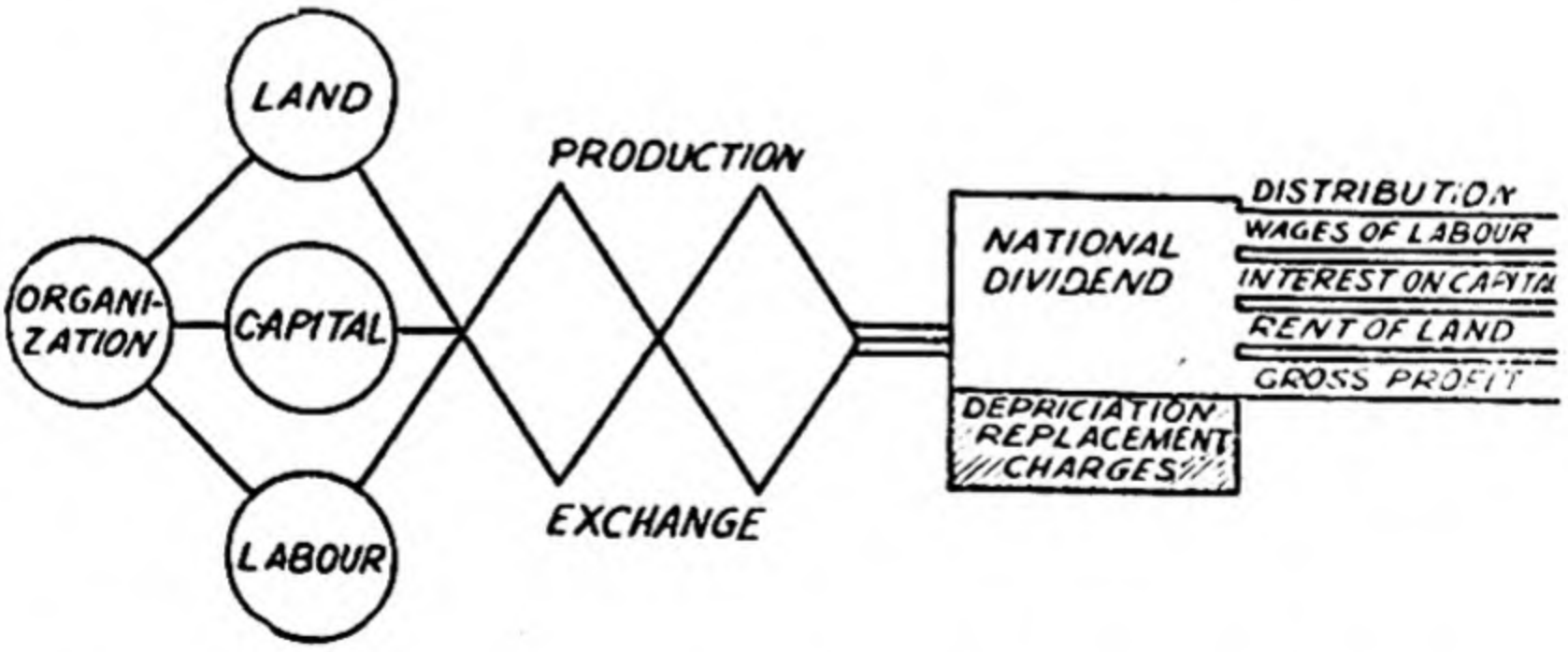
(1) What is there to be distributed ?

(2) Among whom ?

(3) How is each share to be determined ?

4. **National Dividend.** It is the national income or dividend which is to be distributed. National dividend presupposes something to be divided. That something is the total wealth produced by the combined efforts of the four factors of production. It is, however, essential to maintain the productive capacity of a nation intact. Otherwise the nation will become bankrupt after some time. Hence before any wealth is distributed, the machines, buildings and raw materials used up in its production should be repaired or replaced.

The process of distribution is clearly illustrated by the following diagram :—



The size of the national dividend is important for a country inasmuch as the welfare and prosperity of its people depend on its value. **According to Dr. Marshall, "the labour and capital of a country, acting on its natural resources, produce annually a certain *net* aggregate of commodities, material and immaterial, including services of all kinds—this is the true**

net **annual income or revenue of the country, or the national dividend."**

The people are concerned with it in two ways : as producers and as consumers. It is the result of their efforts and the source of their incomes too. **It is thus "the aggregate net product of and the sole source of payment for, all agents of production."** —(*Marshall*)

It should be noted that (*i*) *it is the net produce which is to be distributed.* A sound concern maintains a depreciation fund and every year adds to it a sum of money which in time will grow big enough to replace the machinery and buildings when worn out. Thus a building costing Rs. 33,000 and with an expected age of 60 years will need Rs. 500 to be set apart every year to replace it.

(*ii*) National dividend of a country *includes material goods as well as personal services offered for reward.*

(*iii*) *Wealth is being produced and distributed continuously.* It is not produced in one lot for one year and then distributed. It is a flow—a river of goods and services constantly on the move. This truth is brought out by the labour class which lives from hand to mouth and can hardly wait for its reward even for a month. *National dividend is a flow and not a fund.*

5. **Theory of Distribution.** Obviously among those who contributed to the effort of production. They deserve a share. But it is a *'functional' and not a 'personal reward'.* That is, every *factor* gets an income for the function it performs. A person may receive his income in two or more capacities at the same time, *i.e.*, as a labourer and as a capitalist and/or as a landlord, if he provides more than one factor of production. Distribution of the produce takes place through the organizer. It is he who engages the three other agents and fixes their remuneration on a fair basis. Thus we study distribution of national dividend among the various agents of production and not among individuals.

Personal distribution is largely a matter of statistics. We shall make a study of the personal distribution of income in India in detail in the second part of the book. Here we shall discuss only the economic laws which control the reward to be paid to the four factors of production.

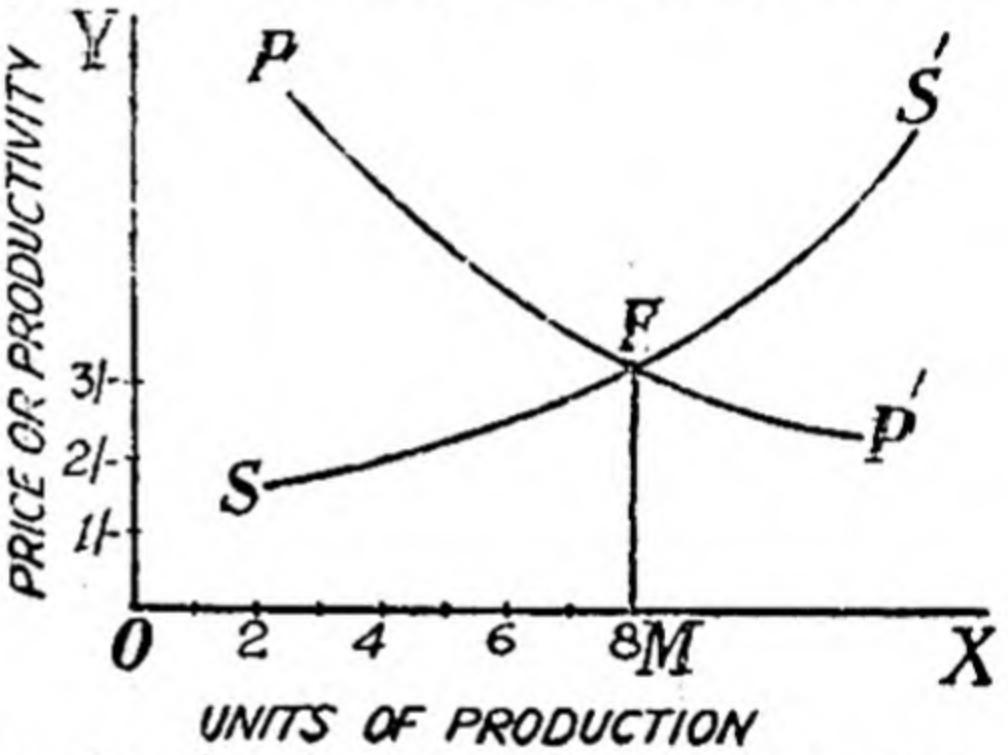
6. **Theory of Distribution.** We are now ready to discuss this question. How to determine the value of the respective services of land, labour, capital and organisation ? The problem of value faces us again. We have already seen how the value of goods is determined. We shall now find how the value of the work done by the agents of production is to be determined. Let us see how the theory of value helps us. In fact in modern Economics it is treated as a part of the Price Theory.

The Side of Demand. Marginal Productivity. You know already that the price of any article coincides on the side of demand, with its marginal utility. In the same way, the *value of each factor* tends to equal its *marginal productivity.* The marginal productivity of a factor is the addition made to total produce by the use of an additional unit of that *factor.* The marginal productivity can

also be discovered by subtracting the production of the last unit of the factor from the total units used and thus noting the reduction in the total produce. This 'addition' or 'reduction' varies with the amount of the factor already in use.

Here we had better remind ourselves of the law of diminishing returns. That law states that as more and more units of any one factor are applied to production, other factors remaining constant, the output may increase more than proportionately *for a time*, but before long it will fall and will go on falling. The productivity of every factor diminishes as more units of it are put in use not *accompanied* by an increase in other factors. Exactly at a point where the addition to the produce made by the unit of a factor is balanced by its cost, the manufacturer pauses, considers and stops. *This is the margin.* Let us illustrate the point with a diagram.

PP′ represents the produtivity of a factor, while SS′ represents its supply price. FM is the marginal productivity of the 8th unit and coincides with the price. The marginal unit at this point (M) is the one which just repays its cost. This is the point where the producer considers it just worth his while to employ the last unit and no more.



For example, suppose the owner of a tailoring firm finds that he can increase his production to the extent of three rupees a day by employing another hand ; then three rupees measure the worker's marginal productivity. The employer will not pay him more than this. And as he is as good or bad as any other worker, *i.e.*, they are all interchangeable, each of them will get Rs. 3 per day as his wages. If at any time the rate of wages falls, the tailor-master will employ more hands for jobs which were not profitable formerly. In the same way, employers reduce their staff when wages go up.

Principle of Substitution. We observe that the law of substitution is in full service here. Every employer is constantly weighing the worth of each unit of a factor against its cost. He plans the distribution of his resources in such a way as to get the greatest return from them. He is keen to find out how a unit of money will be most productive. Will it serve best if one more machine is purchased, or a dozen extra labourers employed, or a plot of land added to the factory ? He achieves the objective of maximum return when he is able to equalize his marginal returns. The producer will so organise production that, in a combination of factors, marginal productivity in each factor is the same. Only then the combination will be the most economical. If it is not the same, it will be made the same through the process of substitution.

The law of substitution will also operate in another way. The producer will so use the factors of production that the marginal

productivity in each case is the same. Only then he will derive maximum benefit from the use of each factor. Thus the Law of Equi-Marginal Utility or the Law of Substitution operates not only in Consumption and Production, but also in Distribution.

Since the demand of an individual employer for a factor of production is an insignificant part of the total demand, he cannot himself influence the price of the service of the factor of production. He has to accept it as given. What he does is to push the use of each factor to a point where marginal productivity equals price. Thus the price of a factor of production is determined by the marginal productivity not to any particular employer but to the employers in the aggregate.

The Side of Supply. We have seen that price in a market is settled by the interaction of the forces of demand and supply. We know that demand is controlled by marginal utility and supply by marginal cost of production. In distribution marginal productivity stands parallel to marginal utility in consumption. When the supply of a factor is known, it will be distributed among its various uses and among the various entrepreneurs in such a way that its productivity at the margin is the same everywhere. The greater the supply, the smaller the productivity of the unit at the margin and *vice versa*. This explains why the return is low when the supply of a factor is large. Marginal productivity is a function of supply, *i.e.*, it varies with supply but it varies inversely. Greater the supply, lower the marginal productivity and hence lower the reward, and *vice versa*.

We have now to find out if there is something parallel to cost of production in distribution. The problem is complex. Let us take each factor in turn. Land is a gift of nature. We cannot speak of its cost as we speak of the cost of, say, a table. Even greater is the difficulty in case of labour. What is the cost of production of a labourer ? It is no use even attempting to calculate it. The same is the case with organisation. At the most one may total up the cost of training of an organiser. God-given gifts and talents have no cost in that sense. In the same way, we cannot measure the *real cost* of saving and investing capital.

Admittedly then there is a real difference between the position of factors of production and ordinary goods with regard to valuation. While it is possible to find out the cost of production of goods, it is not possible to evaluate the factors of production. A different treatment is, therefore, needed to find out the cost of production of the agents of distribution. Hence the theory of value applicable to commodities cannot be applied in its entirety to distribution. There is a resemblance on the demand side but a difference on the supply side.

The marginal productivity theory has been criticised on the ground that it is not realistic. It is based on the assumption of perfect competition, or free mobility of the factors of production, etc., which do not hold good in real life. Besides production is a co-operative work and the productivity of each factor separately cannot be ascertained. The factors of production are not homo-

geneous and they cannot all be split into small units so as to equate their marginal productivity to price. Further, the meaning of productivity is also not clear, whether it is physical productivity or value productivity.

In view of the defects pointed out above, the marginal productivity theory is not considered as an adequate explanation of the determination of the prices of the factors of production. The modern economists accept the demand and supply theory as the correct and adequate explanation.

The modern economists also make use of another concept in order to explain factor prices. This concept is of *transfer earnings*. The amount of money which any particular unit of a factor can earn in its best paid alternative use is called its transfer earnings. The transfer earnings is, therefore, the minimum price which must be paid to a factor of production to induce it to stay in the industry or which is necessary to retain it there. If the price is not paid, the factor will transfer its services to its next best alternative use. Hence the price of a factor of production is determined by its transfer earnings.

7. **Is Distribution Just ?** The actual method of distribution of income varies with the economic system ruling in a country. For instance, communism advocates that everybody should get an equal share out of the available supply. Urban food rationing in India was based on this principle. Such a system is all right in an emergency, but in normal times it cannot be put into operation as the needs and the likes and dislikes of people vary greatly. Nor is equal distribution of goods satisfactory, because in this case the share of everybody would be too small to be worthwhile.

The best system of distribution is the one based on the principle of reward according to work done. This leads us back to the marginal productivity theory of distribution which we have discussed above. We may conclude that this theory supported by the marginal supply-price of a factor gives us quite a workable basis for finding out the reward to be paid to the different factors of production, though we cannot say that it leads to just distribution. It may not be just, but it is also not a scramble. Since everybody gets in proportion to the contribution he makes, the system is not altogether unjust, although the distribution is unequal.

There is no doubt that this has resulted in great inequalities in income mainly due to the presence of the laws of inheritance. But it is also true that the poor have not grown poorer though the rich have grown richer. All Governments today realise the urgent need for reducing inequalities in income. Accordingly, progressive and excess profit income taxes, death duties, wealth tax, expenditure tax, abolition of zamindaris, limitation of dividends, legal minimum wages, social insurance schemes, and other devices have been utilised to reduce the gap between the rich and the poor and to secure the economic welfare of the masses in almost all countries. With the beginning of the era of planning in India, more and more importance is being attached to equitable distribution of income. This is done to ensure a greater measure of social justice.

WHAT WE GATHER FROM THIS CHAPTER

What is Distribution ?

(*a*) *Ages Ago.* The producer and the consumer were one and the same person. There was no problem.

(*b*) *Today.* It is with the development of the complex division of labour and mechanised production that the sharing of national wealth has become difficult. Three problems have to be faced here :—

(1) What is to be distributed ?

(2) Among whom ?

(3) On what principle is the share of each to be determined ?

What is the Problem of Distribution so Interesting ?

(*a*) Because each one of us is a producer and want a share out of the national dividend.

(*b*) Because the total stock of goods produced is not enough to go round and satisfy all needs.

What is to be Distributed ? Obviously, the wealth (though not the whole of it) that has been produced. "National Dividend" or the *net* aggregate of commodities and services produced by the efforts of man with the help of natural resources, is to be distributed. 'Net' means that out of the total wealth produced, a portion must be set aside for replacements for carrying on further production before it can be distributed.

Among Whom is to be Distributed ? The factors of production which have combined to produce it, deserve rewards for the functions they perform.

How is the Share of each Determined ? This is the most interesting question of all. Here we have to decide the value of the services of various factors.

The Demand Side—Marginal Productivity. A factor of production is paid according to its marginal productivity, *i.e.*, the addition made to total production by the last unit of a factor employed. The employer never employs a unit of labour or capital for a price greater than its marginal productivity. And all the units, being interchangeable and supposed to be of equal efficiency, are paid at the same rate. The employer stops where he feels that he is paying equal to the productivity of the marginal unit employed.

Law of Substitution. Every producer is anxious to make the best of his resources. He is always trying to substitute more productive factors for less productive ones. Will it be more profitable to employ more labourers or purchase a new machine or extend the area of the factory ? This is the eternal question before him. The law of substitution equates the marginal productivities of the factors employed.

Supply Side. In ordinary goods, on the side of supply, the cost of production determines price. It is difficult to find this cost in the case of various factors. Land has no cost of production. Cost of labour is even more difficult to find. Similarly we cannot talk of the real cost of producing capital. This difference makes the problem of Distribution complex.

Is the System of Distribution Just ?

(*a*) The system varies with the prevailing political system.

(*b*) Equal distribution or rationing is all right for an emergency like war, but not in normal peace times.

(*c*) Self-effort should be encouraged, but at the same time gaps between classes should be reduced. This will maximize economic welfare in a country.

Distribution according to marginal productivity may not be absolutely just but it is also not a mere scramble. Its great defect is that it creates inequality.

CAN YOU ANSWER THESE QUESTIONS ?

1. What do you study in Distribution ? Show the relation of Distribution with exchange. (*P.U. 1946*) [See Secs. 2 to 6.]

2. What is Distribution and what are its main problems ?

3. Why is the department of distribution so interesting and why are its problems so difficult to slove ? [See Sec 3.]

4. What does the economist understand by Distribution ? Indicate how the mode of distribution is of great economic significance. (*P.U. 1938*)

[See Secs. 2, 3 and 4.]

5. Give clearly the idea of National Income. (*P.U. 1951 Suppl.*)

[See Secs. 2, 3 and 4.]

6. Define 'national income'. How is it distributed among the various factors of production ? [See Secs. 2 and 6.] (*Patna 1934*)

7. "The central problem of economics is the determination of value." Is this true in the case of distribution also. If so, does the same theory of value apply her also ?

[Yes. Here we see how the services of the factors of production are evaluated. The same theory applies but with modification. There is a difference on the supply side.] [See Sec. 6.]

8. What is the meaning and importance of 'marginal productivity' in distribution ? Give examples.

Or,

Explain the marginal productivity theory of distribution and point out its limitations. [See Sec. 6.] (*Sardar Vallabhbhai Vidyapeeth 1959*)

9. Explain the working of the principle of substitution in the department of distribution. [See Sec. 6.]

10. What do we study in distribution ? Examine the principles on which the National Dividend of a country is distributed among different factors of production. [See Secs. 2 and 6.] (*J. & K. 1955*)

11. On what principles is the national dividend of a country distributed among different factors of production ?

(*C.U. B.Com. 1940 ; C.U. 1933 ; Agra 1942 ; Pat. 1944 ; Mad. 1933*)

[See Sec. 6.]

CHAPTER XX

FACTOR PRICING : RENT

"A payment which is not a cost"

1. **Meaning of Rent.** Rent is a much-used word. Every one is familiar with it. But every time it is used it has a different meaning. It tells you of what a tenant periodically pays his landlord for the use of house or land. It also refers to the payment made for the hire of a sewing machine or a radio set. Perhaps you reside in the college hostel and the term 'rent' reminds you of the monthly charge you pay to the college clerk along with your fees for the use of your room. Thus quite often you mix up 'rent' with the terms 'fare' and 'hire'. In ordinary speech, rent refers to the total amount of money paid as a hiring charge or for the use of land. It is *contract rent*. What a cultivator is actually paying to the landlord is the contract rent. It includes economic rent, *i.e.*, payment for the use of land as well as interest on capital invested therein.

Economic rent is that part of the total payment which is made for the use of the land *only* as distinguished from the payment made for the capital invested therein. Suppose a tenant is paying Rs. 200 to his landlord. This amount is contract rent. If out of this sum, Rs. 50 represent interest on capital invested in the tube-well, the remaining Rs. 150, being only for the use of land, is economic rent.

Economic rent is also a surplus. **"It means the surplus which remains to the cultivator after he has paid all the expenses of production and has remunerated himself for his own productive effort. In this sense it is the excess of the crop over the expenses**—(*Penson*). Rent is the income derived from land and other free gifts of nature included in land in Economics. When a tenant is out to take a farm on rent, he is prepared to pay to the owner of a fertile piece of land a bigger sum that he would for another piece of the same size but of less fertility or inferior situation. He is ready to pay more because he can get extra produce from this piece of land. This *surplus over the marginal land is economic rent.*

Surplus arises when the supply of a factor of production is not perfectly elastic. This is the case with land. The supply of land can neither be increased nor decreased whatever the rent it fetches. In other words, the supply of land is independent of what it earns. Land has no supply price. The word 'surplus' is used to denote what a factor earns over and above what is essential to maintain its supply in its present occupation. If the supply of a factor is perfectly elastic, it can earn no surplus. If there is a surplus, the supply of the factor will increase and the surplus will disappear. On

the other hand, if supply is not elastic, the surplus can persist. The supply of land is not perfectly elastic, hence this factor will continue yielding a surplus, *i.e.*, rent. The supply price of land is zero, hence its entire earning is a surplus or rent.

The idea of surplus is explained by modern economists with the help of a concept called transfer earnings. As explained in the last chapter, 'transfer earnings' refer to the amount of money which any particular unit could earn in its best alternative use. The price which is necessary to retain a given unit of a factor in a certain industry is called its transfer price or transfer earnings. If a factor is earning over and above its transfer earnings or transfer price, the surplus or excess earnings is rent. Since land has no supply price, its entire earning is surplus or rent.

Thus two things stand out in rent in the economic sense : (*a*) It is a payment for the use of land *only* a part from the payment made for capital invested in it ; and (*b*) it is a surplus over cost of production (including normal profit) or surplus over transfer earnings. Sometimes he may pay even more than this surplus. This happens when the supply of land is limited as in old countries like India and alternative occupations are few. Here the demand is greater than the supply. Owing to competition between the tenant-cultivators, the landlord can usually charge the whole of economic rent (payment due to superior fertility or better situation of land) and sometimes even more than that.

"What, then, is the nature of the rent I pay for my room in the hostel ?" you ask. A portion of the money charged from you is for the use of land on which your room stands. Something is included as interest on the capital invested in the building. But this is not all. The college is maintaining some staff to help you. There is the superintendent, the *mali*, the *chaukidar* and the sweeper. You get some extra service including water, light and sanitation. You pay your share for all these. Besides these, payment may be necessary for the risk taken in building your hostel. "Yes", you say, "I have naturally to pay for all these." *This is gross rent.* It is contract rent and not economic rent, because economic rent is a payment for the use of land only. The contract rent includes—

(*a*) Interest on capital,

(*b*) Wages for management,

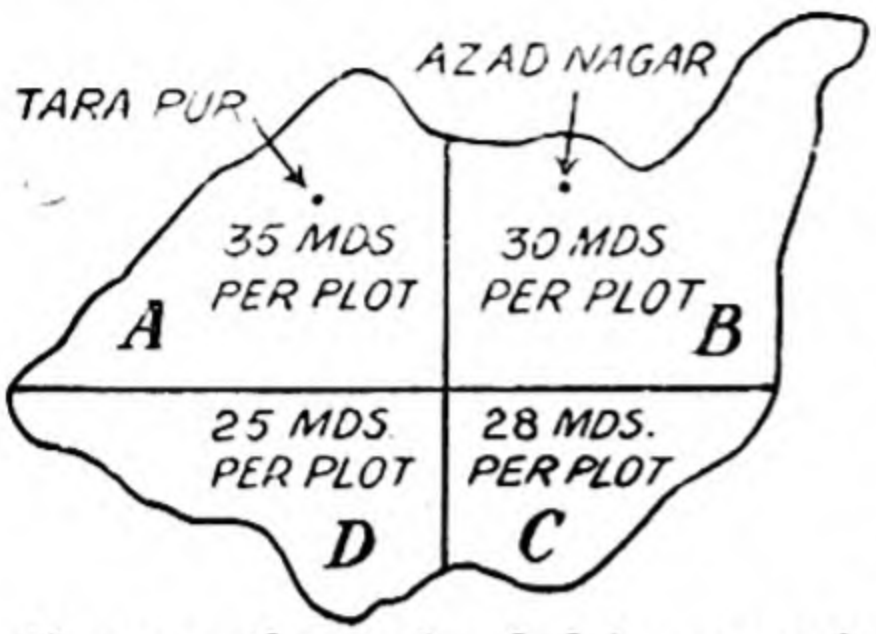
(*c*) Profit for the risk, and

(*d*) Economic rent.

It is quite clear, therefore, that rent of the ordinary speech (*i.e.*, contract rent) is different from economic rent or rent in economic sense.

2. **How Does Rent Arise ? Ricardian Theory.** The classical theory of rent is associated with the name of David Ricardo. He begins with a group of new settlers in a new country. Let us suppose ourselves to be the settlers in a hitherto unknown island which we shall call Jawahar Island after our beloved leader.

As we study the natural resources of Jawahar Island, we find the land to be of four grades. For convenience, we call them A, B, C and D in the order of their fertility. We shall settle down in Tarapur in 'A' part of the island. This is the most fertile land and gives us the largest produce per acre. Enough land is available of this quality to satisfy all our needs at the moment. Therefore, it is a free good and will not command any price, *i.e.*, rent. But as time passes the mouths to be fed increase in number. This may be due to more immigrants, who have heard of our good luck, or due to an increase in population.



(*a*) *Rent in the Extensive Form.* A time comes when all land of the best quality has been taken up. But some demand still remains unsatisfied. We have to resort to 'B' quality land now. It is inferior to 'A' and yields only 30 mds. of wheat per plot as compared with 35 mds. of 'A' with the same expenditure of labur and capital. Naturally plots in 'A' acquire a greater value as compared with 'B'. A tenant will be prepared to pay up to 5 mds. of wheat, in order to get a plot in the 'A' zone, or take 'B' quality land free of charge. This difference, paid to the owner (if the cultivator is a tenant) or kept to himself (if he is the owner) is economic rent. In the first case it is *contractual rent*, in the latter it is known as *implicit rent*. 'B' plots do not pay any rent. To go a step further, we see that after all land of 'B' quality has been taken up, we begin cultivating 'C' plots. Now even 'B' quality land comes to have a differential surplus over 'C', rent of 'A' increases still further.

When the demand increases still more, we are pushed to use the worst land, which is 'D' quality yielding 25 mds. per plot. 'D' quality is now no-rent land or marginal land while 'A', 'B', 'C', all earn rent. This growing demand show itself in rising prices. They rise high enough to cover the expenses of cultivation on the lowest grade land, *i.e.*, 'D' quality. Let us suppose that one unit of productive effort is equal to Rs. 105. When only 'A' quality land, where a plot produces 35 mds., is under the plough, the price of wheat will be Rs. 3 per md. When due to greater demand the price of wheat rises to Rs. 3/8, then and only then will 'B' quality land be cultivated which produces 30 mds. of wheat. And when that happens 'A' land will have a surplus of 5 mds. $\times$ Rs. 3/8 = Rs. 17/8 per plot. This becomes rent.

The difference, in other words, between the return from a plot of land above the margin and the marginal plot (i.e., the one just paying its way) is called rent or economic rent.

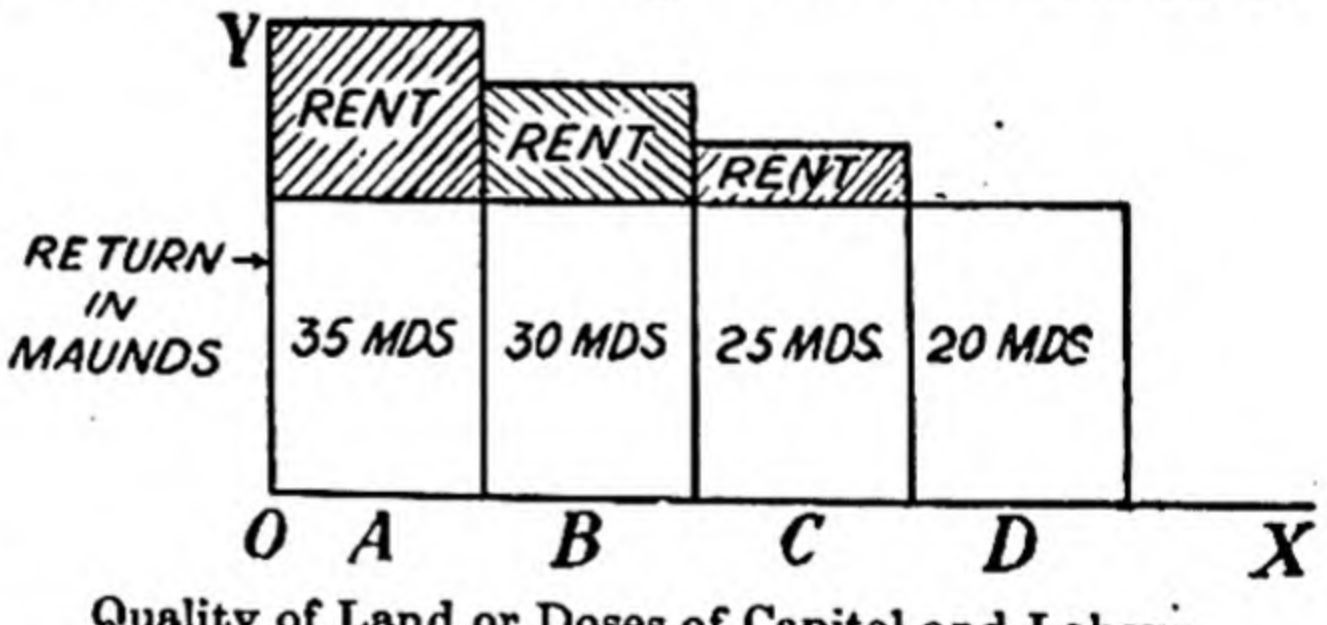
(*b*) *Rent under Intensive Cultivation.* The settlers in Jawahar Island realize that there is another way too of increasing the produce. Why not apply more labour and capital to superior lands and resort to intensive cultivation ? This is done but it is seen that the law of diminishing returns sets in. The second unit of labour and capital

used on 'A' plot will almost definitely give us less than the first. We suppose it gives us only 30 mds. So we have the choice of either taking new plots in 'B' land, or cultivating 'A' lands more intensively. If we adopt the latter course, the first unit of labour and capital will be yielding a surplus over the second unit—which unit produces *just enough* to cover the expenses. This surplus, again, is rent. As more and more units of labour and capital are applied, the return per unit will go on falling.

(*c*) *Rent due to Differences in Situation.* With the passage of time, however, a new factor emerges. A locality in the 'A' zone—marked Tarapur in the diagram,—develops into a market and Azadnagar in 'B' into a railway junction, and crops have to be sent to those two flourishing localities for their final disposal. Now the plots situated in the neighbourhood of Tarapur and Azadnagar come to have an advantage. They have either no transport charges or much smaller charges than in the case of lands in 'C' and 'D' areas. Transport charges are a part of the cost of production because *production is complete only when the commodity is in the hands of consumers.* The better situated plots wich have to bear less transport charges, will enjoy a surplus over the distant ones. *This surplus will be another cause of rent.*

Hence economic rent is a surplus which arises on account of natural differential advantages, whether of fertility or of situation, possessed by the land in question over the marginal land.

No-rent or Marginal Land. The cases described above show that rent is earned due to a certain plot being better suited for cultivation or being better situated in regard to markets. But better than what ? Of course better than some other plot of land. This 'some other' plot is the marginal land which just covers its expenses and no more. This land is called 'no-rent land.' All rents are measured from it upwards. In the diagram, 'D' quality land which produces 20 mds. per plot is the marginal land. Here the return and cost are equal. It is just worthwhile cultivating this land since it just covers expenses of cultivation and yields no surplus to the cultivator. It is quite possible we may not be able to discover the 'no-rent land' because (*a*) it may be paying scarcity rent, or (*b*) the owner might have invested some capital in it and the interest might be mistaken for rent, or (*c*) the no-rent land may be in some other country or (*d*) the no-rent tracts may form part of a rent-paying area and be concealed in it.



(*d*) *Scarcity Rent.* In our new home-country, Jawahar Island, we at least come to a position when all the lands have been brought under the plough, and are being cultivated intensively too. But the

price rises still further under the pressure of demand. Population has been increasing fast. Our country has become old and no more land is available as we are an island country. Prices of agricultural yield go up and incomes from land go up. Therefore, all land (including the no-rent 'D' quality land) begins to get surplus above expenses. This surplus above costs in the 'D' quality land, our previous no-rent land, is scarcity rent. Superior lands will be paying this surplus over and above their *differential gain.*

Conclusion. Summing up, we see that rent is a differential surplus and arises from the fact that land possesses certain peculiarities as a factor of production. It is limited in area and its fertility varies. Besides, its situation is fixed. Thus rent results because :

(1) fertility is more or less fixed by nature ;

(2) every plot differs in situation which cannot be changed ; and

(3) the total stock of land is fixed and cannot be increased.

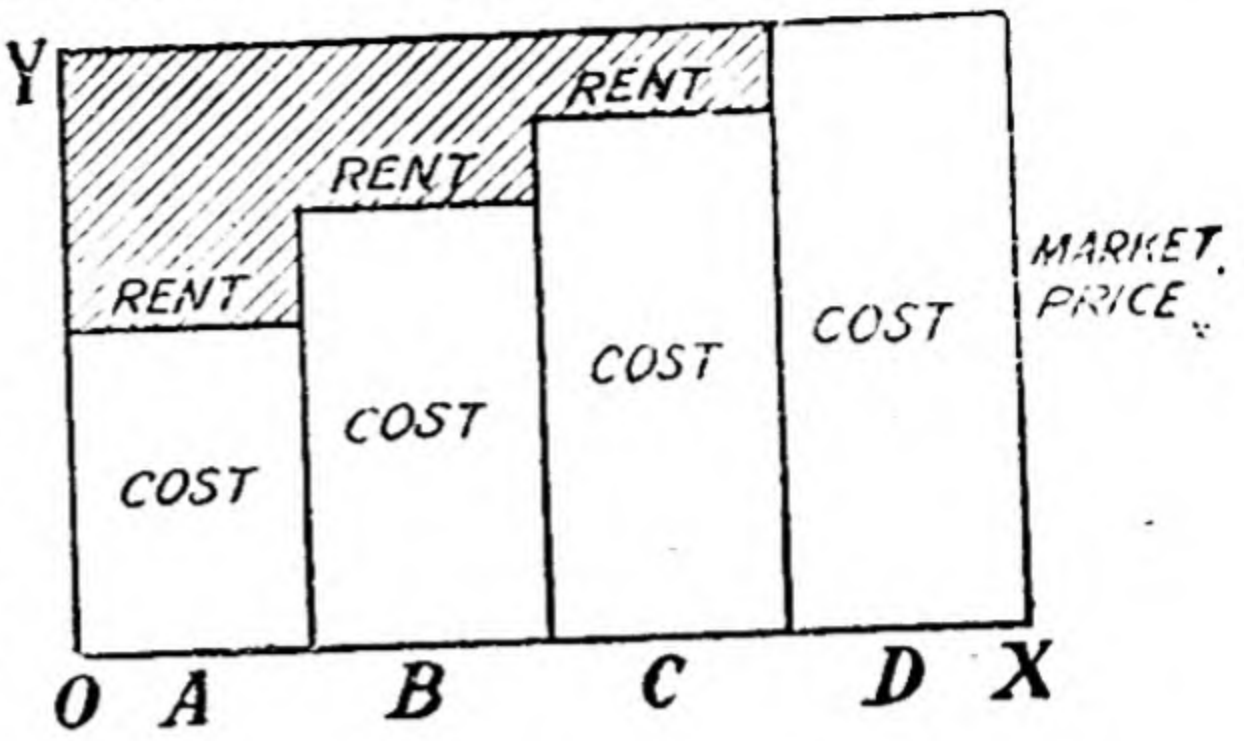
On this basis Ricardo defines rent as *"that portion of the produce of the earth which is paid to the landlord for the original and indestructible powers of the soil."* According to him fertility, situation and limited total stock—these qualities, which are original as well as permanent, give rise to rent.

3. **Rent and Price.** The relation between rent and price is commonly misunderstood. Rent is a surplus above cost. It does not, therefore, enter into price. We have observed in the preceding discussion that price depends on the cost of production on marginal land which is no-rent land. In other words, rent is not included in the costs which determine price. It is only when price has risen high enough due to the forces of demand and supply, that rent on any plot appears. Thus *rent is the effect or result of price and not the cause of it.*

Ricardo, in his day, tried to explain with the help of this argument that landlords were not to blame for dear corn. *"Corn is not high because a rent is paid but a rent is paid because corn is high".* Rather, even if the landlords sacrificed all their rent (or if it were taken away by a cent per cent tax) corn would sell at the same price as before. "It has been justly observed", Ricardo continues, "that no reduction would take place in the price of corn although landlords should forego the whole of their rent." It means that rent is not a factor that determines price but is itself determined by price.

Here is a weapon for you ! Next time a shopkeeper in Connaught Place in New Delhi tells you that he has to charge high prices to meet higher rent charges, you can tell him that he is talking nonsense ! If he did not get snobs and mugs, as customers who did not mind paying him higher prices, he would not go in for that dear shop and the owner of the building would be compelled to reduce rent. If the public came to know that he was charging higher prices they would avoid his shop. Only a foolish shopkeeper would put forward this argument or only a foolish customer would be taken in by it. Thus high rents are paid *because* much higher prices can be charged *rather than* prices are high because of high rent.

The following diagram clearly shows that rent does not enter price. Rectangle D represents the cost of raising produce on 'D' class of land. It is seen that cost goes on rising with falling fertility. The market price has to cover the cost if the produce of this land is needed to meet the total demand. And when the cost of produce on 'D' land is being covered by the price, 'A', 'B' and 'C' are earning a surplus called rent. There is no rent in the rectangle on 'D'. We can conclude, therefore, that *rent is determined by, and does not determine, price. Rent is price-determined and not price-determining.*



Plots of Lands of Various Grades

4. Criticism of Ricardo's Theory of Rent. Ricardo has summed up in his famous statement that rent is the payment "for the original and indestructible powers of the soil". The two words "original" and "indestructible" have come in for much criticism.

Firstly, it is pointed out that the fertility of land is not *original.* Much of the present producing capacity of land is the result of human efforts, use of manures and other improvements. Thus at no time is it possible to say which qualities of land are original and which of them are man's creation.

Situation is something which man cannot change. Undoubtedly it is not possible to move a plot of land to another place. But man can improve the means of transport so much that distance between two places matters little. Thus he can manage to change the character of a place. The planned cities and factory towns of today are the product of man's brain.

Although this criticism has a leg to stand upon, it cannot be denied that certain original qualities *do* matter. No human effort will change Rajputana into Kashmir.

Secondly, the idea of indestructibility is objected to. Area, it is said, is everlasting but not fertility. Continued cultivation exhausts fertility. We observe this in the case of lands in India. They are reported to be less fertile and, therefore, less productive per acre today than they were in the past. Ricardo's doctrine, however, cannot be wholly rejected. Land which is naturally fertile regains its fertile qualities more easily, if it is manured or left fallow. Creation of fertility in barren land is more difficult. Besides, no amount of use will entirely kill the fertility of land.

Thirdly, certain American economists like Carey have criticised the classical theory of rent on historical grounds. They say that cultivation did not begin with the most fertile lands when the first settlers arrived in America nor did it pass on to the less fertile lands

in that order. The reason was that some of the most fertile lands were covered with thick forests while others were open to enemy attack. The settlers naturally preferred less fertile areas which were open and could be defended. The criticism answers itself. Not necessarily the most fertile, but the land offering *the best reward for a definite effort* is occupied first. Moreover, the order of cultivation is not so important. Even if the order is changed, when two types of land are being cultivated, the more fertile or better situated plots *will* produce a surplus above the cost. The surplus will arise whichever land is cultivated before the other. Rent will still arise even if all the lands were of uniform quality. It will arise in the intensive form.

Fourthly, it is said that rent is not due to differential advantages only. Even if all lands are of uniform quality, rent would still arise. Rent arises from scarcity.

Fifthly, Ricardian Theory does not say why rent is paid ; it only tells us that superior lands command higher rent.

Sixthly, the concept of marginal land is said to be imaginary, theoretical and not realistic.

Seventhly, no special theory of rent is necessary. Demand and supply theory which explains all values, can explain rent also.

Finally modern economists think that it is only from the point of view of economy as a whole that land has perfectly inelastic supply and earns a surplus of rent. This surplus is not included in cost and hence does not enter into price. But from the point of view of individual farmer or industry, a payment has to be made to prevent land from being transferred to some other use. The payment, called *transfer earnings*, is an element of cost and hence enters into price. For the individual farmer the whole of rent is cost. "This concept of transfer earnings helps to bring the simple Ricardian Theory—where transfer earnings are zero because it is the whole economy which is being studied—into a closer relation with reality."—(*Stonier and Hague*).

5. **Modern Theory of Rent.** We have seen that the term 'rent' is used in two senses : (*i*) it is a payment for the use of land only and (*ii*) it is a surplus over costs or its transfer earnings. We shall state the modern theory in respect of these two meanings.

(*i*) Rent as a payment for the use of land only. This payment is explained by the demand and supply theory which is the modern theory of rent. Demand for land is derived from the demand for its products. If the demand for products increases, rent must rise, and *vice versa*. Rent is paid because of productivity of land, not total productivity but marginal productivity. On the other hand, supply of land is perfectly inelastic. It is a case of a fixed supply. Rent of land is the outcome of interaction of its demand and supply. It is the scarcity of land in relation to demand that determines rent. Fundamentally speaking, rent is paid for land, because the produce of land is scarce in relation to demand. This scarcity principle explains all values, and rent is no exception to it.

(*ii*) Rent as surplus over transfer earnings, *i.e.*, what a factor can earn in its best alternative use. Now for the economy as a whole land

has no alternative use. Its transfer earning is, therefore, zero. Hence its entire earnings are regarded as rent.

6. **Other Rents.** *Rent of Non-Agricultural Lands.* Let us consider the nature of rent in some other forms. No new principles operate in the case of rent of urban sites whether used for residence or business. The only difference is that fertility does not count here, while situational advantages are much more important. In residential houses, things like well-paved streets, sanitation, lighting, drainage and respectability of the locality matter much. The slums of Old Delhi may well be contrasted with the fine, open, sanitary spaces in New Delhi. Rents will be naturally higher in New Delhi than in Old Delhi. When a number of storeys are piled up in a building one above the other, we are using a plot intensively, and rent emerges in a manner similar to land when intensively cultivated.

Rent of Mines and Quarries. The rent of mines and quarries is a little different. Sooner or later they are entirely exhausted—unlike agricultural land. Therefore, the payment for their working includes, apart from economic rent, a price or royalty for using up their contents. Economic rent here too is the result of greater productivity from some mines as compared with those on the margin. Royalty paid is extra. It is usually calculated per ton of output. Fisheries in the sea also normally do not tend to be wholly exhausted. Therefore, their rent has a smaller element of royalty and much more resembles rents from agricultural lands.

7. **Rent Element in Other Factors.** A person might conclude from the above discussion, that rent is a kind by itself and does not resemble any other payment. But this is not so. The peculiarity of land after all is that all its stock is fixed for ever. Rent arises from this peculiarity. That is why Benham defines rent as "a surplus accruing to a specific factor, the supply of which is fixed." Now no other factor is permanently fixed like land. But whenever the supply of other factor is fixed even temporarily, their return resembles rent and is called *quasi-rent. Thus an element of rent is present in interest, wages and profits, and is called quasi-rent.* It lasts only for a short period of time and disappears when conditions become normal.

Quasi-rent. During the last war merchant shipping became scarce. New ships could not replace the lost ones quickly as ships take long to build. So existing vessels began to charge high freights and earned exceptional profits. These profits were temporary, because had the need lasted long enough, new ships would have been constructed and profits reduced to normal. Such like abnormal earnings, *during the period the supply of machines or ships is fixed,* are termed by Marshall as 'quasi-rent'. 'Quasi' literally means 'almost'. *Quasi rent is, therefore, a payment which is almost rent but is not exactly economic rent.* "The additional payment for these agents of production the supply of which, though alterable in a long period, is fixed in a short period is technically known as a quasi rent."

—*Silverman.*

Rent Element in Wages and Profits. Similarly, skilled labour producing essential goods earns abnormal wages in times of war.

This is due to the scarcity of trained labour. Such extra earnings, too, resemble rent. The case of organisation is not different. For instance, if a health resort becomes very popular all at once, the hotel-owners there will make good profits till new hotel-keepers are attracted, and profits are reduced to the normal rate. During this short period, organization will earn surplus income resembling rent.

Personal Rent. Just as some lands are more fertile than others, similarly some people are superior to others. A Laurel or a Hardy differs from a wayside tomfool. A Raj Kapoor on the screen will earn much more than a third-rate actor. All trades make extra payment to really gifted people. Special incomes due to these gifts are called *rent of ability* or "personal rent."

It follows from the above discussion that **land rent does not form a separate class by itself.** It is only a prominent example of its kind. Or, as Marshall describes it, "*It is a leading specie of a large genus.*" An element of it is present in wages, interest and profits at times.

8. **Effect of Economic Progress on Rent.** The progress of society can be in different directions. Effects of this progress on rent are, therefore, bound to vary with the directions in which the society progresses. We shall study this effect in its various aspects.

(*i*) *Increase of population. An increase in population results in higher rent.* Larger numbers need more food. An extra supply of food can be secured only by ploughing less fertile land because the more fertile or better situated lands are already under the plough. The only other alternative is more intensive cultivation of superior lands already in use. In either case, this involves greater expense which farmers will not willingly incur unless they are rewarded by higher prices. Thus more fertile lands will earn higher rents.

(*ii*) *Improved means of transportation.* Such an improvement may bring about either a fall or an increase in rents. Rents would tend to fall on lands which were already in use and were near the markets. But rents would tend to rise on lands which were fertile but were previously far away from such markets. Thus it was seen that when ocean transport improved between America and England, rents fell in England while they rose in America.

(*iii*) *Improved methods of agricultural production.* Better methods cause rent to fall as they result in large production without a parallel increase in demand. Therefore, lands on the margin go out of use, prices tend to fall, and rents come down.

9. **Indian Land Revenue and Economic Rent.** Reference may be made to rack-renting in India. The land revenue in the case of the peasant with a small holding is a heavy burden and has an element of rack-renting. Economic rent, as we have seen, is a surplus. But the land revenue that an Indian peasant has to pay is not necessarily a surplus. Generally it is not. Owing to lack of alternative occupation there is keen competition for land and the peasant has to pay more than he can afford to. He has to pay land revenue even though he may have no surplus. If in some cases land revenue is equal to economic rent, it is more by accident than by design.

As for actual rents, they have been governed more by custom than by economic forces. Due to the land hunger, there is a lot of rack-renting and the actual rents are, therefore, higher than economic rents.

WHAT WE GATHER FROM THIS CHAPTER

Meaning of Rent. In everyday talk rent means the payment made for the use of a house, land, a radio or a taxi. It is a hiring charge.

The surplus that remains after all expenses of cultivation have been met is called 'economic rent' (*Person*). 'Contract rent' is settled by contract between the landlord and the tenant. Under conditions of free competition, both tend to be the same. Contract rent refers to the total amount paid by a tenant, whereas economic rent is that part of this payment which is for the use of land only apart from any capital which may be invested therein.

Gross Rent. It includes interest, wages, profit and economic rent.

Ricardo's Theory of Rent has become classical. (*a*) *Rent in Extensive Form.* He argues that in a new country settlers first cultivate the best land. With increasing demand, inferior lands are cultivated. Better lands come to enjoy an advantage. This advantage grows large as the margin is pushed down. When cultivation reaches the worst grade land, all the superior lands enjoy a surplus. *This is rent in extensive cultivation.*

(*b*) *Rent in Intensive Cultivation.* Production can also be increased by putting in more labour and capital in the old plots. The law of diminishing returns applies so that the previous doses of labour and capital enjoy a surplus of produce over marginal doses. This difference too is rent.

(*c*) *Situation Rent.* Areas near markets and railway stations have to pay less for transport than others at a distance. This advantage gives them situational rent which lands at a distance do not enjoy.

The marginal land is that which it is just worthwhile to cultivate. It is least fertile or worst situated but is one whose produce is needed for the market. That is 'no-rent' land.

(*d*) *Scarcity Rent.* When all the land has been brought under the plough and the demand is still unsatisfied, the price of produce rises. Thus all lands begin to enjoy a surplus (called scarcity rent) above cost of production.

Conclusion. In a nutshell, then, rent arises owing to fertility, situation and scarcity. In Ricardo's words, it is the payment for the "*original and indestructible powers of the soil*".

Rent and Price. Price depends on the cost of cultivation of the marginal land which pays no rent. Thus rent is not a part of price but it is itself determined by price. It is not the cause of high prices but their result.

Criticism of Ricardo. (1) It is said that no powers are "original." Fertility is increased by human efforts and distance may lose importance through improved means of communication. But still there is a good deal of original element in the fertility and situation.

(2) Nothing, they say, is indestructible. Fertility can be exhausted by continuous use. But Ricardo's theory is not baseless. Fertile lands regain lost fertility more easily.

(3) Carey objects to the theory of rent on historical grounds. In America cultivation did not proceed from the best land to the worst because the best land was covered with forests and bushes. But the order of cultivation is immaterial. Besides, situation is an additional factor to be considered.

(4) Modern economists point out that land has perfectly inelastic supply only from the point of the economy as a whole. Individuals can vary the quantity of land put to particular uses by drawing it form less altractive uses. This transference cost is a part of production and hence, from the individual's point of view, rent enters into price.

Non-agricultural Rent, too, is determined on the same principles. In urban localities, situation matters the most. In case of mines, etc., a part of payment is for the exhaustion of their capacity. This is called royalty.

Rent is a Leading Specie of a Large Genus. As a peyment, rent is not the only one of its kind. Sometimes other factors temporarily resemble land. The payment they then receive is called *quasi-rent*. Ships in times of war earn a surplus income due to scarcity till more of them are built. Similarly labour and organisation sometimes get extra income which can be termed **'quasi-rent'.**

Personal Rent is the extra income earned by men of superior ability over and above the marginal people in any profession. This is why popular actors earn more than the ordinary ones.

Economic Progress and Rent. Increasing population raises rents. Improved transport will raise the rent if a place is connected with a new market and will lower it if it is connected with a new source of supply. Improved methods will lower rents.

Land Revenue and Rent. Due to land hunger in India both land revenue and actual rents are higher than economic rent.

CAN YOU ANSWER THE FOLLOWING QUESTIONS ?

1. *Explain the nature of economic rent.* (*Delhi 1955 ; P.U. 1936*)
   Explain economic rent and contract rent. [See Sec. 1.] (*Ajmer 1955*)
2. *Will there be economic rent if—*
   (*i*) *all plots are alike in fertility and situation ;*
   (*ii*) *the landholder himself is the cultivator of land ;*
   (*iii*) *if the law of diminishing return did not operate ?*
   Give reasons for your answer. (*P. U. Pre. Univ. 1962*)
   [(*i*) Yes, but only due to intensive cultivation and scarcity. (*ii*) Of course, yes, although it will remain with them. (*iii*) Then, no rent would arise.]
3. *Define 'rent'. Show how it is a surplus.* (*Delhi Pre-University 1961*)
   [See Sec. 2.]
4. *Explain fully :—*
   (*i*) *Scarcity Rent.* (*P.U. 1945*)
   (*ii*) *Quasi-Rent.* (*P.U. 1943*)
   (*iii*) *Personal Rent.*
   (*iv*) *Contract Rent.* (*U.P. Board 1944*)
   (*v*) *Situation Rent.*
   [(*i*) See Section 2 (*c*). (*ii*) See Section 7. (*iii*) See Section 7. (*iv*) See Section 1.]
5. *What is Economic Rent ? How is it determined ?* (*Pb. Univ. H. S. 1962 ; Rajasthan Inter 1960 : Utkal Inter Arts 1959*)

   Or

   Give the economic meaning of the term rent. How does rent arise ? (*Delhi H.S. 1960*)
6. *Define rent. Explain and criticise upon the Ricardian Theory of Rent.* (*Sardar Vallabhbhai Vidyapeeth 1959 ; U.P. Board 1957, 58 ; Pb. H.S. 1961 Suppl.*)

   Or

   Rent is paid for original and indestructible powers of the soil. (*C.U. B.Com. 1944 ; C.U. 1945 ; Agra 1941 ; All. 1935 ; Delhi 1929 ; Dacca 1937 ; Pun. 1938 ; Nag. 1943 ; Bombay 1953*)

   [See Secs. 1, 2, 3 and 4]
7. *What is economic Rent ? How does it arise ? Examine the relationship between rent and price.* (*P.U. 1959 Suppl. ; Delhi H.S. 1959*)

   Or

   Distinguish between economic rent and contract rent. Explain the Ricardian Theory of Rent. (*Delhi H.S. 1962*)

Or

Explain the Ricardian Theory of Rent. Does rent enter into costs that determine price ? (*J. & K. 1956*)

Or

"Rent does not enter into price." Discuss. (*P.U. 1942*)

Or

It is true to say that "prices are high because rents are high or that rents are high because prices are high ?"—(Ricardo).

Or

Discuss the relation between agricultural rent and agricultural prices. (*C.U. 1936 ; C.U. B.Com. 1939 ; All. 1936 ; Agra 1938, 41 ; U.P. Inter. Arts 1958 ; Dacca 1940 ; Delhi 1939*)

[High and low rents are the *consequences* of high and low prices, but not their *cause*. See Sec. 2.]

8. "Rent is the leading specie of a large genus." Do you agree ? Discuss this statement.

Or

"Difference between rent, wages and profits is one of degree only." Explain. [See Sec. 7.] (*C.U. B.Com. 1934*)

9. Distinguish between rent and quasi-rent and examine the influence of progress on rent. (*C.U. 1937 ; C.U. B.Com. 1932, 33 ; Agra 1933 ; Nag. 1942*)

[See Secs. 7 and 8.]

10. Write notes on :—

(*i*) *Intensive Margin of Cultivation.* (*P.U. 1939*)

(*ii*) *Quasi Rent.* (*P.U. 1940, 43, 45*)

(*iii*) *Scarcity Rent.* (*P.U. 1935*)

[For (*i*) See Sec. 2 (*b*) ; for (*ii*) See Sec. 7 ; and for (*iii*) See Sec. 2 (*d*).]

11. Define Economic Rent. How is it affected by progress of society ? (*Ajmer Board 1952 ; P.U. 1934*)

[See Sec. 1. With higher standard of life and growth of population rents tend to rise, while, on the other hand, with improved technical knowledge, improved means of communication and transport, greater specialisation and increased investment, rent tends to fall. See Sec. 7.]

12 Consider the effect on rent of

(*i*) *increase in population,*

(*ii*) *improvement in agriculture,*

(*iii*) *improvement in transport.* [See Sec. 8.]

CHAPTER XXI

FACTOR PRICING : WAGES

"The Price of Human Sweat and Tears"

1. **Meaning of Wages.** Wages are the reward paid to the worker for his labour. The term 'labour' as used in Economics, has a broad meaning. It includes the work of all who work for a living, whether this work is physical or mental. It also includes the exertion of independent professional men and women like doctors, lawyers musicians and painters who render service for money. In fact, labour in Economics means all kinds of work for which a reward is paid. **Any type of reward for human exertion whether paid by hour, day, month or year and paid in cash, kind, or both is called wages.** "A wage may be defined as a sum of money paid under contract by an employer to a worker for services rendered" —(*Benham*). It is essentially a price for a particular commodity, *i.e.*, labour services.

2. **Types of Wages.** Wages have been classified in several ways. They are as follows :—

(*a*) *Wages in cash and kind.* In some villages in India, we find that a good many labourers are still paid in grain, fodder and other commodities which they get at the time when the two main crops, *rabi* and *kharif*, are harvested. In one way, payments in kind are good, as then, a rise in the prices of foodgrains would not affect the labourer for the worse. From another point of view, this system is bad, as wages in kind are largely governed by custom which does not allow the standard of living ever to improve. In towns, however, wages are paid in cash and are ruled by contract or agreement.

(*b*) *Time wages, Piece wages and Task wages.* (*i*) *Time wages.* If a worker is employed at a fixed rate per hour, per day, per week or per month, he is called a time worker. To base the rate or wages on a unit of time is a very old method. The 'day' is a more popular unit of payment than any longer period of time because labourers find it difficult to wait long for their reward. This method is suitable where quality of work is very important and the amount of work done cannot be measured.

(*ii*) *Piece wages.* When, however, payment is made *according to work done*, it is a system of piece wages. This system of payment is found in types of work which can be easily measured, *e.g.*, manufacture of hockey sticks, cricket bats, etc. Here quality is not so important as the quantity of work done. This is suitable where the work is to be done at great speed.

(*iii*) *Task Wages.* When, however, the payment is contracted to finish a job we have task wages. Good deal of government work in India is done on contract basis.

Let us illustrate the difference between these three kinds with an example. If you want to have your house white-washed, you pay for it in any of the above three ways. You may hire a labourer, on daily wages (time), or fix a rate for every hundred square feet of wall white-washed (piece), or settle a lump sum for the whole job (task). Many times the work cannot be easily measured, so the payment has to be made by the time-wage method.

(c) Sometimes wages are classified according to the kind of workers employed :—

1. '*Salaries*' are paid to the higher staff consisting of engineers, supervisors, managers, professors, teachers, etc.

2. '*Pay*' is the term used for payments made to clerks, typists, stenographers, etc., *i.e.*, middle-class employees.

3. '*Wages*' are earned by the so-called 'hands'—the lowest grade of skilled and unskilled manual workers.

4. '*Fees*' are paid for consulting people in independent professions like doctors and lawyers. You are familiar with the 'tuition fees' you pay for receiving instruction in a college.

5. '*Commission*' is the word for the margin allowed to middlemen like property brokers, *arhtias*, agents, booksellers, etc., on the value of the transaction.

6. '*Allowance*' is a special payment made for some special work or for special reasons—as for travelling, maintenance of cycle or car, dearness due to high prices, or house rent.

Whatever the method, form or name of the payment, wages mean the share of labour—the second claimant in the national dividend. It should, however, be noted that a labourer is not so much concerned with how he is paid or the number of money-pieces he gets. His main concern is to satisfy his needs. This brings us to a discussion of money-wages and real wages.

3. **Real Wages and Nominal Wages.** The money paid to a worker as a reward for his work is known as nominal wages. But what is money wanted for ? Obviously for the goods and services it can buy. By 'real wages' we understand the satisfaction that a labourer gets from spending his money wages in the form of necessaries, comforts and luxuries. It means the total benefits, whether in cash or kind, that a worker enjoys by working at a certain job. The following factors have, therefore, to be taken into account when estimating real wages :—

(1) *Purchasing Power of Money.* Money is only a medium of exchange. We value it for its power to buy goods and services. Let us take an example. We see that, according to the general index maintained by the Economic Adviser to the Government of India, average wholesale prices have gone up to nearly four times as compared to 100 in 1939. The monthly earnings of persons with fixed salaries have not gone up to the same extent. They are, therefore, proportionally much lower than before. Therefore, to say that salaries have gone up is a pitiful joke ! For such persons, real wages have fallen as the purchasing power of money has gone down to about

25%. Price level, therefore, is an essential factor to be taken into account while estimating real wages.

(2) *Additional Receipts in Kind.* The money income of a person may be increased by free quarters, cheap rations, a free uniform, special gifts on festival days, and the like. A person or a sweeper improves his living from such sources. A pension after retirement, or a free bungalow adds to an officer's real income.

(3) *Possibility of supplementing the Income.* Some employments are such as give time or create an opportunity for increasing one's income. Thus a professor may write articles or books or a teacher may coach students privately and supplement his income.

(4) *Working Hours.* We have to consider the hours worked per day, the days per week, as well as the off-days in a year. Frequent rest intervals add to one's real wages and comfort. In some occupations, workers have to put in extra work without extra payment. For instance, the staff of a bank has a hard time at the half-yearly close. Sometimes senior officers get unauthorized work from their juniors. Such unpaid overtime work reduces real wages.

(5) *Regularity of Employment.* If a person is frequently out of work even a high money-wage ultimately means a low real wage. Continuous employment on a lower wage is preferred to work which is more paying but is uncertain or temporary. That is why an ordinary lawyer or a doctor may take to service as against independent practice.

(6) *Nature of the Job.* Certain employments are very risky. Others reduce the length of a worker's life—like driving railway engine. The life of an air pilot in action is said to be a few hours on an average! In many vocations accidents are common. Money wages may be high in such cases, but taking all things into consideration real wages would be low.

(7) *Future Prospects.* One may accept even a modest start if the future promises are bright. We are struck dumb when we find school teachers after twenty years' hard work earning a bare hundred rupees a month! Such prospects would not prove attractive if teachers could not make money from private tuition work.

(8) *Expenses of starting a Trade.* Some occupations require much initial expenditure. Good furniture, latest instruments and medicines are necessary for a doctor to start his practice. One forms a poor impression of a lawyer if his office is not furnished with at least half a dozen book-shelves stuffed with bulky volumes. Such expenses have to be deducted from money wages when estimating real wages.

These are some of the factors that have to be taken into account while estimating the real wage of a worker as distinguished from his nominal wage.

4. **"Low Wages are Dear Wages."** Just as there are real and nominal wages, similarly we have real and nominal costs of labour. A salary is paid by an employer to an employee. For the latter it is an income, but for the former it is a cost. This cost may nominally appear to be different from what it really is. Under-paid

labourers are dissatisfied. They try to scamp work. Well-paid workers are contented. They often *more than repay* the higher wages. Productivity thus depends on wages. Real labour-cost is, therefore, found by comparing productivity and the money wages paid. This is how nominally cheap labour may in reality be a costly one. *High wages may conversely mean cheap labour.* This is what the phrase "*economy of high wages*" signifies.

We shall refer to the relation between efficiency and wages again later.

5. **Why a Separate Theory of Wages ?** Labour has certain peculiarities. Hence a separate theory for determining the reward of labour is required. Labour is not like any other factor of production. The main peculiarities are :—

(*i*) The demand for a commodity depends on its utility to the purchaser but the demand for labour depends not on its utility to the employer but on its productivity.

(*ii*) The labour service is inseparably tied up with the person who supplies it. The human element in the labour market deserves a special consideration and necessitates a separate theory.

(*iii*) Institutional and behaviour factors exert powerful influence on wage bargains. A sympathetic employer may be more generous towards his labour.

(*iv*) Labour has weak bargaining power as compared with employer who buys it, hence wages are actually less than they ought to be.

(*v*) Labour is perishable. Having no staying power, labour is prepared to work at a lower wage than it is due.

(*vi*) Law of supply works in a strange manner in case of labour. It may happen that the supply of labour may be reduced when its earnings increase. Thus changes in the price of labour react rather curiously on its supply.

In view of the above factors, a separate theory of wages is called for. But it is well to remember that wage is also a price (of labour), hence fundamental analysis of price through demand and supply applies here too.

6. **Theories of Wages.** This problem has exercised the mind of almost every economist in the past. Many theories have been advanced to explain wages : (*i*) For long it was believed that wages, in the long run, would tend to equal just enough of food, clothing and shelter to maintain existence. This is known as the *Iron Law of Wages* or the *Subsistence Theory of Wages*. It was for the first time propounded by David Ricardo. He believed that even if wages tended to be more than required for mere subsistence, it would be temporary. Prosperity of the workers would soon increase the population, and hence the labour supply. This would depress the wages and bring them down to the level of subsistence. Similarly, wages below the subsistence level would starve certain workers ; others won't marry. This will reduce the supply of workers and raise wages. Thus, according to the Iron Law of Wages, wages must, in the long run, correspond to the subsistence level of workers.

(*ii*) Then the *Wages Fund Theory* was developed by J. S. Mill. He maintained that a certain fixed proportion of the capital of a country was set apart for payment as wages to labourers. This proportion he called the Wages Fund. Thus, according to him, wages at any moment were determined by the amount of money in that fund and the total number of labourers in the country. If the fund remained constant and supply of labour increased, wages would fall, and *vice versa*. This theory broke down under criticism, as it could not be discovered how the fund arose and why it remained fixed. Besides, it was proved to be historically false.

(*iii*) *Residual Claimant Theory.* Then another theory replaced the wages fund theory. According to this theory, the worker is the residual claimant of the product of industry. He gets out of this product what remains after land, capital and organisation have been paid their reward. Thus wages are determined only after rent, interest and profits have been deducted from the total produce. This theory also had to be given up because in actual practice it was found that when rent, interest and profits rose, wages also increased at the same time. Moreover, it is not the worker who is the residual claimant but the entrepreneur.

(*iv*) Ultimately it was realized that it was not the wherewithal to maintain body and soul together but the standard of living which determined wages. Standard of living may be defined as "the amount of necessaries, comforts and luxuries to which a class of persons is accustomed and to attain and keep which they will undergo any reasonable sacrifice like working longer or postponing marriage." Well, if one thinks of it, people with decent standards of life do seem to be earning good wages. But good wages are not paid simply because the worker has a *high standard*. It is rather because a higher standard means better training, better education, better food, which in their turn result in greater efficiency, that higher wages are paid. *Secondly*, a person with a higher standard of living usually plans his family, and limits the number of babies. *Lastly*, when people have a set standard they will usually exert hard to earn a wage high enough to maintain it.

Standard of living, we may then conclude, *has an indirect influence on wages through effecting the efficiency of labour*. But this is only a partial explanation of wages—that on the side of supply.

(*v*) *The Marginal Productivity.* It is seen that a labourer is wanted for what he produces. Hence the employer will not pay him more than he is worth. The employer is constantly comparing the wage he has to pay to every additional worker with what this worker adds to the total production. As long as the cost of a labourer in the form of wages is less than the productivity of that labourer, the entrepreneur goes on employing more labourers. This worth decreases as the number of workers increases. This is according to the law of diminishing returns. Hence he naturally stops at the point where he feels that the net addition made to production by the last worker is equal to the money-wage paid to him. *This point is the margin and the productivity of the marginal man equals the wage.* Since all the workers are supposed to be equal in efficiency they are all paid

at the same rate. The rate is determined by marginal productivity. If the wages shift from the marginal net product-point either way, the employers will bring it back to the point of balance. This will be done by curtailing or expanding employment.

This theory makes clear one factor governing wages. *It is an explanation from the side of demand only.* It considers the employer's point of view and not the worker's point of view. The worker is more interested in his standard of living than his marginal productivity. Besides, the theory assumes (*a*) free competition, (*b*) homogeneous quality of the workers, and (*c*) possibility of employing more or less labour. These assumptions do not always hold good. Hence actual wage may not correspond to the marginal productivity of the worker. Therefore, this theory is not a complete answer to the question 'How are wages determined ?' The answer is given below:—

(*iv*) **Modern Theory of Wages : Demand and Supply Theory.** The above two partial explanations when put together make a complete one. The value of labour, like all other values, determined by the interaction of the forces of demand and supply. Demand for labour is derived from the demand for its products. The greater the consumer demand for the product of labour, the greater the producer demand for the labour involved in making it. The demand for labour is also affected by prices of other factors of production. It also depends on techniques of production. The demand for labour depends on its marginal productivity.

The supply of labour means the various number of workers of a given type of labour which would offer themselves for employment at varicus wage rates. At the current wage rate an individual firm can get as many workers as it likes ; hence supply of labour to a given firm is perfectly elastic at the current wage rate. But not so with the case of demand for labour for an industry. If the industry wants more labour, it can get only by offering higher wages. It can also increase the supply of labour by making existing labour work overtime. The supply of labour for the entire economy depends on economic, social and political factors, *e.g.*, customs regarding women workers, working age, etc., size and composition of the population and the efficiency of labour. Sometime workers prefer leisure to work. These are some of the factors on which supply of labour depends.

On its demand side, labour is demanded because it is productive. The demand price of labour naturally depends upon how much it can produce. The marginal productivity goes on diminishing as the number of hands employed goes on increasing. *But at no time is the employer prepared to pay more than what a labourer produces.* Hence at the margin, the productivity equals the wages. Wages cannot rise above the marginal productivity of labour in the long run, because employers in their own interest will not consent to it.

Labourers, as a rule, will struggle hard to keep up their habitual standard of living, They will not, in the long run, be satisfied with anything else. (Subsistence level, of course, is the minimum which may be temporarily tolerated in special circumstances.) To

this end, they will form trade unions and will bargain collectively. *The standard of living, therefore,* provided it is not above efficiency, *is the minimum level which will influence wages in the long run.*

In short, the wages at any given time will depend on the relative bargaining powers of the two concerned parties and will be fixed up at some point in-between the maximum of marginal productivity and the minimum standard of living of the labourers.

In the long run, under conditions of perfect competition wage tends to equal both to marginal revenue product and average revenue product, because only in this way will the firms in the industry earn just normal profits, neither more nor less. If marginal productivity is greater average productivity of it will be profitable to employ more labour till marginal productivity falls to the level of average productivity. If, on the other hand, marginal productivity is less than the average productivity, labour employed will be reduced till the marginal productivity rises to the level of average productivity. Marginal productivity and average productivity thus tend to be equalised in the long run. Since wages are equal to marginal productivity, they also tend to equal average productivity.

7. **Why Wages Differ?** We have occupied up till now with the problem of how wages *in general* are determined. But is there any general rate of wages?

If labour had been like any other commodity, it would also have been sold in the market in the same way. But as you know, labour is peculiar in certain respects. Labourers differ in efficiency. They are less mobile than capital and goods. Their supply cannot be increased to order and it is a most painful process to reduce them. If a day is lost, its labour is lost with it. For these and other reasons a uniform rate of earnings for workers is not possible. There is no prevailing rate of wages similar to the prevailing rate of interest. All over the world, labour is split up into a very large number of groups and sub-groups, each with a different level of wages. Even within the same group the differences are ever so many. *Consequently there cannot possibly be a general rate of wages.* All that can be done is to find out an average rate which can be discovered by dividing the total amount paid to a given group by the total number of workers in it. The fact is that the wages differ from occupation to occupation. Wages are relative.

Now we take up the problem of relative wages, *i.e.*, why they differ from occupation to occupation.

No proof is needed to show that wages vary. Beginning with the humble day-workers, who are the lowest paid, we have various grades, till we come to specialized executive like engineers who command princely salaries. The problem of differences in wages may be split up into two parts—(1) the economic bases of such differences, and (2) causes of differences from industry to industry.

(A) **Economic Bases of Differences in Wages.**

(*a*) *Productivity of labour differs in different trades and grades. The cobbler's job is not as productive as that of a skilled motor mechanics or of a clerk's as that of the Principal of a college.*

(*b*) *The efficiency required of workers varies with industries.* For instance, one industry may require a high level of efficiency which is required only through long education and training followed by practical experience involving heavy expenditure. Wages here will naturally be higher than in an industry where no such training is needed. For instance, the reward of a master surgeon, who has taken twenty years to learn his job, is bound to be greater than that of an ordinary vernacular teacher who is fit to start his work after a year's training only.

(*c*) *Presence of Non-competing Groups.* Society is divided into a number of labour groups which are not competitive. Caste system creates such groups in India. As a result a child born to a sweeper will most likely be a sweeper just as a blacksmith's son will be a blacksmith. This is partly due to heritage and partly to environment in childhood. There is no doubt that inborn qualities depend on parentage. A labourer's son, for instance, does not possess as much intelligence as a lawyer's son. Besides, the atmosphere in the house develops certain faculties. In addition, the chances of receiving a training depend upon the resources of a family. It is because of these **—inheritance, environment and training**—that workers are said to be born for particular lines.

(*d*) As a result of the scarcity of qualities discussed above, the demand for and supply of labour in certain trades do not balance properly. *Labour is well-known for its lack of mobility.* The existence of non-competing groups makes it more immobile.

(B) **Causes of Differences in Wages from Industry to Industry.**

Now, let us see why one industry pays labourers more or less than another. The general rate of wages in any industry depends on the demand for and the supply of labour in that industry. The following factors influence the demand for labour and its supply.

(*a*) *Agreeableness and Disagreeableness of a Trade.* An agreeable or pleasant occupation will usually attract a larger supply of labour and, therefore, pay lower wages. An unpleasant job calls for higher wages. The most detestable of all employments, the hangman's job, is paid more highly than any other work of equal difficulty. A teacher in a village school is very poorly paid as his work is light and respectable and, therefore, more agreeable than many others. Even an ordinary hawker earns more than what a teacher does !

(*b*) *Difficulty and Cost of Learning a Trade.* When the trade can be learnt easily and inexpensively, it will have a large number of entrants. The marginal productivity is low and so is the wage. Unskilled dock labourers are an excellent example. Sweepers in India are another. Caste compels them to keep to their work. Their numbers are large and, therefore, wages low.

(*c*) *Equipment Used.* The marginal productivity of labour depends on the kind of tools used. One of the main reasons why the earnings of cultivators in India are low is that their tools are poor. An equally efficient farmer earns less in India than in America where he has better implements.

(*d*) *Steadiness of Employment.* In seasonal trades, the wages have to be higher as compared to those where work is regular. This is the reason why young men prefer low paid jobs under Government to taking up an independent line where the earnings, though higher, are irregular.

(*e*) *Amount of Trust Reposed in the Labourer.* Administrators have to be richly paid because their positions carry trust and responsibility. The wages of jewellers are higher than those of ordinary labourers for the same reason.

(*f*) *Chances of Success.* The greater the risk of failure, the higher the reward in case of success. Were it not so, the supply would fall short. A successful lawyer earns far more than a Government official, but the number of successful lawyers is small.

(*g*) *Government Regulations.* Sometimes authorities fix minimum wages in particular trades, thus reducing differences between these and other trades.

(*h*) *A low money wage may be helped out by extra amenities.* Due to the presence of such amenities the difference in wages may only be nominal and not real. A cook in your house is paid less in cash than a peon in an office but he gets free food, free lodging and free clothes and is thus really better paid than the peon.

(*i*) *Supplementary Income.* Where there is a possibility of having extra income, the regular wage may be lower. Professors' salaries are low but they have opportunities of making extra income by writing books, private tuition or by making answer-books.

8. **Wages of Women.** Women are usually paid less than men. This is due to the following reasons :—

(*a*) Women cannot do an equal amount of physical work. They are physically weaker and cannot undertake strenuous labour carrying higher wages.

(*b*) Their earnings usually help only to supplement the income of the family, which mainly depends on man's wages. Supplementary income is generally low.

(*c*) Women do not take up a life-long career. Their main objective is to marry and settle down to family life. Hence they do not try to improve their prospects.

(*d*) Comparatively, fewer occupations are open to women. Custom and prejudice shut them out from many callings ; hence there is overcrowding in the occupations which they can take up. Their earnings are consequently low. They form what is known as a non-competing group.

(*e*) They are not well-organized, hence they are weak in driving bargains with the masters. They have thus to be content with low earnings.

Very often it is asked why unpleasant work, like scavenging, is paid so poorly. *First of all,* it should be remembered that tips, gifts of food and clothes on ceremonial occasions enhance their real wages. *Then* their standard of living is very low. *Besides,* their work is unskilled. Even a small child can pick it up. No cost is incurred in

training. *In addition*, in India, due to prejudices, they cannot change over to any other profession. The number of children born to poor people of this category is usually large. Hence supply of such labour is large relatively to demand for it. For all these reasons, the supply of this kind of labour is such as to keep their wages low.

9. **Legal Minimum Wages.** These are days of democracy. Every Government has at heart the welfare of the masses. Efforts are, therefore, directed to protect the weak and the poor who are usually at the mercy of the rich and the strong. It has been recognised that the 'sweating' of women and low class labourers (Harijans in India) should come to a stop. Governments have adopted various methods to do this. Most effective remedy is to fix minimum below which wages are not allowed to fall. Such a system is prevalent in England. In India too a number of steps have been taken to fix minimum wages for labourers in rural areas as well as in some selected industries. A Minimum Wages Act was passed in 1948. It has already been applied to a large number of industries.

Indeed it is not out of place to mention that democracy has gone a step further. The ideas of 'Minimum Wages' are being replaced by those of a 'fair' or 'living' wages. The latter aim at assuring the worker not only a bare minimum of food, clothing and shelter but also an allowance for establishing the social status of the worker so as to offer him opportunities to train his children as efficient workers.

Besides fixing minimum wages, several other measures of social security are being adopted to promote labour welfare.

10. **Social Security.** This term has become current in modern times. Towards the close of war, countries like England and America were discussing the amenities they proposed to supply to their people, *e.g.*, Beveridge Scheme. Social insurance had already been provided in leading countries.

The term 'Social Security' is much wider than social insurance. In social security are included not only social insurance but also social assistance. Social insurance benefits are given to those who contribute. But social assistance is provided out of the Funds of the State—in certain prescribed circumstances. There are certain risks, *e.g.*, sickness, unemployment, etc., which are best covered by social insurance. But there are certain circumstances which are suitable for social assistance, *e.g.*, hospital facilities, sanatoria, child welfare, school health service, etc. Hence social security stands for social insurance *plus* social assistance.

The modern States have now realised that it is their responsibility to provide their citizens against certain contingencies, the five Giants mentioned by Beveridge, *viz.*, Want, Disease, Ignorance, Squalor and Idleness. The Beveridge Scheme for Great Britain, the Marsh Report on Social Security for Canada and the Murray Dingell Bill of the U.S.A. indicate the scope of social security.

India is still an infant as regards social security and has taken only one or two tiny steps in this direction. The Employees' State Insurance Act was passed in 1948. It now (1958) covers 13 lakh

workers, about half of the total insurable population of the factory workers. The Employees' Provident Fund Act was passed in 1952. At present (1958) 6,215 factories employing about 28 lakh workers are covered. Then there is the Workmen's Compensation Act which provides benefit, in the case of disablement, temporary or permanent, and death occurring on account of injury sustained by a worker while on work.

This is very modest indeed. It is a case of "Little done and vast undone".

11. **Trade Unions.** A trade union is a continuous association of workers formed for the purpose of maintaining and improving their working conditions. When industry was first mechanized, it resulted in wretched factory conditions, low wages and exploitation of labourers. In sheer self-defence, *the labourers formed associations called trade unions.*

They perform two sorts of functions : (*i*) militant, and (*ii*) fraternal, mutual help or constructive activities. They can bargain with the employers collectively, and also improve their general condition. Trade unions' main weapon is to strike work. By refusing to work in a body they compel the masters to agree to their terms. Hence nowadays a labourer is not helpless. His union is ready to fight for him. It is the employers who now feel the necessity of joining hands to withstand labour's unfair demands. They retaliate by declaring lock-outs and closing down factories. Thus they try to compel the unions to agree to their terms. There is a regular war going on between the employers and the employees.

Trade unions also attend to the constructive side of their work. They open schools, dispensaries and recreation centres for their members, and try to cure them of evil habits like drinking and gambling. They also provide relief to their members when unemployed. In these ways, the unions help the workers and improve their efficiency. Unfortunately most trade unions do little more than act as strike committees.

Nowadays wise employers have awakened up to the need for closing the growing gulf between master and man. They provide labour with amenities within their means and sometimes give it a share in profits and management.

12. **Can Trade Union Raise Wages ?** Ordinarily the wages of a worker do not rise above his marginal worth. Sometimes, however, circumstances may arise when this may happen. Such circumstances may be as follows :—

(*a*) The workers may succeed in forcing the employer to pay them more than their marginal worth by threatening a strike. Workers will succeed in this design only :—

(*i*) if they are well organised,

(*ii*) if they hold a monopoly of the supply of labour of that type, and

(*iii*) if their wages form but a small part of the total cost of production.

It is possible that compelled by such threats an employer may give up a part or the whole of his own income and temporarily pay the labourers more than their marginal worth. The employer will, however, be induced to part with his own share only when he finds that a large part of his expenses will continue even if the factory closes down and that his loss will be greater if he closes his factory than if he gives higher wages. He then chooses the lesser of the two evils. Ultimately, however, he has to stop producing. He cannot indefinitely go on paying a wage which is greater than marginal productivity. If the unions persist in demanding too high a wage, the factories will ultimately close and the workers will become unemployed. Continued unemployment will lower wages.

We can then conclude that no employer will internally pay more than the marginal productivity of labourers. It is not good business. Only in isolated cases and for short periods will he be prepared to surrender his share of the general revenue. Thus the trade union can raise wages above marginal productivity only temporarily.

(*b*) Aggressive trade unions with a strong monopoly of labour can sometimes force wages above the marginal productivity level and keep them there. This results in higher costs which end in higher prices. Consumers buy less of the commodity, demand falls, and production has to be reduced. Ultimately then, the short-sightedness of labourers, who try to force up wages above their marginal worth, recoils on them. The factory is either partially or wholly closed and they lose their jobs.

Hence the trade unions cannot raise wages permanently beyond marginal productivity. But they can at least raise them up to marginal worth, if they are lower.

However, they can increase real wages by providing various amenities and carrying out labour welfare programmes.

WHAT WE GATHER FROM THIS CHAPTER

Meaning of Wages. Any type of reward, in cash, kind or both, paid by hour, day or month paid for any work, mental or physical, is called wages.

Importance of Wages. Vast majority of people today work for a reward. Hence the economic welfare of any community depends on the amount of wages distributed amongst its workers.

Types of Wages. Wages may be paid in kind or cash. They may be according to time (time wages), or work (piece wages), or fixed by contract (task wages).

Classification :

(*a*) *Salaries* for higher staff.

(*b*) *Pay* for clerks.

(*c*) *Wages* for annual workers.

(*d*) *Fees* for people of independent professions.

(*e*) *Commission* for middlemen and brokers.

(*f*) *Allowance* for special work

Real Wages and Nominal Wages. Nominal wages mean the reward paid in money. Real wages denote the actual satisfactions or total benefits enjoyed by the worker. Real wages depend upon : (*a*) purchasing power of money or the price level, (*b*) additional receipts in kind, (*c*) supplementary earnings, (*d*) number of working hours, (*e*) regularity of employment, (*f*) nature of the job, (*g*) future prospects, (*h*) trade expenses

Low Wages are Dear Wages. What is income to the worker is cost to the master. Real cost can be discovered only with reference to the efficiency of the worker. Thus high wages mean better work and, therefore, lower cost.

How Wages are Determined ? Many theories have been advanced. It is now accepted that on one side wages depend on the standard of living of workers. If the standard of living is improved, wages will tend to go up through greater efficiency that is its result. The standard of living thus influences wages.

On the other side (the side of demand), marginal productivity determines wages. It is claimed that wages tend to equal the marginal productivity of the worker. This is the addition made to the total productivity by the last worker employed. All workers of one category are of the same efficiency, hence their wages are equal. Thus, wages coincide with the productive capacity of the marginal worker.

Demand of Supply. When we combine the two theories mentioned above we find the truth. Wages are determined by the two forces of demand and supply. On the side of demand the employer will, at the most, pay the worker equal to the value of his marginal productivity. On the supply side, the labourers will try hard to get a wage sufficient to maintain the customary standard of living.

Between the upper limit of marginal productivity and the lower limit of minimum standard of living, wages at any time depend upon the bargaining power of labour and the strength of its organisation.

Is There a General Rate of Wages ? Labour is peculiar in many ways. Hence there is no general rate of wages, similar to a general rate of interest. We can only find out an average rate of wages.

Why do Wages Differ in Different Employments ?

(*a*) Economic bases for differences :—

(*i*) The difference may be due to differing productivity.

(*ii*) The efficiency required of a worker varies with occupations and calls for different periods of training and expenses.

(*iii*) The existence of non-competing groups in a society results in an imbalance between demand and supply of labour.

(*iv*) The chances of training depend upon the means of a family.

(*b*) Demand for labour and its supply are affected by :

(*i*) Agreeableness or disagreeableness of a trade.

(*ii*) Difficulty and cost of learning a trade.

(*iii*) Implements used.

(*iv*) Regularity or otherwise of a job.

(*v*) The amount of trust that has to be reposed in a worker.

(*vi*) Chances of success.

(*vii*) Government regulations.

(*viii*) The existence of other facilities.

(*ix*) Supplementary income.

Special Cases : Women Labour is usually paid less than male labour due to lesser strength, shorter training, fewer openings, not being a permanent worker, etc. *Sweepers* are poorly paid though they do an unpleasant job. This is due to additional gifts, no cost in training, low standard of living, large numbers, etc.

Legal Minimum Wages. Every Government tries to protect workers from sweated labour and tyranny of employers. The best method to do this is to fix minimum wages of workers.

Trade Unions and Their Functions. A trade union is a permanent body of workers for bargaining with the employers. Strikes are their usual weapons. These bodies have become very powerful so much so that employers have to organise themselves into associations. Employers retaliate through lock-outs, *i.e.*, by closing factories. They perform two functions : (*i*) militant, and (*ii*) fraternal or mutual help functions.

In India trade unions need to be guided towards constructive work of benefit to the members in place of simply creating trouble.

How Far can Trade Unions Increase Wages ? When workers are well organised and hold a monopoly of the supply of labour in that area they may force wages above their marginal worth, but this is a temporary affair. If wages are forced up for a long period of time, the factory is closed and the labourers lose their jobs. But the unions can at least ensure that wages are paid according to marginal productivity of workers. They can also raise wages by improving labour efficiency through labour welfare work.

Social Security. Social Security means social insurance plus social assistance. Advanced countries, like the U.S.A., U.K. and France have adopted ambitious programme of social security. India has taken only a modest step in this direction, *viz.*, Provident Fund and State Employees' Insurance Schemes.

CAN YOU ANSWER THESE QUESTIONS ?

1. *Give the peculiar features of labour as a factor of production. What effect do they have on their wages ?*

[See Sec. 2. They give rise to the exploitation of labour and the struggle between capital and labour. Factory conditions and housing etc. matter much.]

2. *What are wages ? Enumerate the different methods of wage payments. What are the causes of wage differences in different occupations ?*

[See Secs. 1, 2 and 7.] *(P.U. 1959 Suppl.)*

3. *Distinguish between 'real' and 'nominal' wages. Why are wages different in different industries ?* *(Delhi Prep. 1962)*

[See. Sec. 30]

4. *How would you compare the real wages of a domestic servant in a town with those of servant of a village community in the countryside ?* *(P.U. 1940, 47)*

[See Sec. 3. A domestic servant in the town gets free food, lodging and clothes and occasional tips besides his pay, while a domestic servant in the village gets no pay and no free food or clothes. He only gets a share in the yield of the crop.]

5. *Distinguish between nominal and real wages and explain the factors which influence the real wages of the occupation.* *(Rajasthan Pre-Univ. 1960)*

Or

What items will you include while calculating the real wages of a (a) school teacher, (b) a village **Patwari,** *(c) a college lecturer, (d) a domestic servant, (e) managing director of a big company.*

[See Sec. 3.] *(J. & K. 1958 ; P.U. 1957 ; U.P. Board 1956)*

6. *Are wages under a system of barter necessarily real wages ? If not, why ?*

[*Not necessarily,* because real wages also depend on other things like supplementary sources of income, working hours, etc.] [See Sec. 3.]

7. *What is meant by cost of labour ? Explain the idea that "Low wages are dear wages."* [See Sec. 5.]

8. *Discuss the following theories of wages :—*

(*a*) *Subsistence Theory or Iron Law of Wages ;* *(Punjab 1946)*

(*b*) *Wages Fund Theory ;*

(*c*) *Residual Claimant Theory ; and*

(*d*) *Productivity Theory.*

(Cal. 1924 ; Agra 1942 ; Delhi 1940 ; Patna 1945 ; Punjab 1947)

[See Sec. 6.]

9. *Are wages settled in the same way as the value of any common article ?*

[See Secs. 2 and 6.]

Or

How far is it true to say that the theory of wages is an application of the general theory of value ? *(C.U. 1931 ; Agra 1939 ; Pun. 1935)*

[See Sec. 6. There is a resemblance on the demand side but a difference on the supply side because labour has no cost of production that can be calculated.]

10. *How are wages determined ?* [See Sec. 6. (*vi*).]
(Utkal Inter Arts 1958 Supp.)

11. *How does the efficiency of labour affect wages ?*

[Efficiency affects wages directly. The employer pays a worker according to his productivity. See Sec. 6.]

12. *Examine the relation between the standard of living and the rate of wages.*
(Ajmer 1952 ; U.P. Board 1952)

[Standard of living influences wages from the supply side. See Sec. 6. In the long run wages must ensure the standard of living of the workers. On standard of living depends efficiency and on efficiency depends wages. Hence standard of living affects wages indirectly. But standard of living depends on wages directly.]

13. *Why do wages differ in different employments ?*
[See Sec. 7.] *(Cal. 1930 ; C.U.B. Com. 1941)*

14. *Why do wages differ in (i) the same occupation and (ii) in different occupations ?* [See Sec. 7.] *(Sardar Vallabhbhai Vidyapeeth 1959)*

15. *Why is the Principal of your college paid a higher salary than his peon ?*
(Utkal Inter Arts 1958)

16. *"Wages are usually higher in towns than in villages and in industry than in agriculture." Comment fully upon the statement.* [See Sec 7.]
(Ajmer 1955)

17. *Explain the causes of the differences in the earnings of sweepers, secondary school teachers, engineers and air pilots in India. Is there any justification for paying lower wages to women than to men in modern industry, for similar work ?*
(P.U. 1960)

18. *What do you mean by Legal Minimum Wages ? How do labourers benefit from them ?*
[See Sec. 9.]

19. *What is a trade union ? State and briefly explain its principal functions.*
[See Sec. 11.] *(Bombay 1954 ; P.U. 1959)*

20. *Write notes on :*
(i) Trade unions. Strikes and lock-outs. (iii) Standard of living.
(P.U. 1942)
(iv) Non-competing groups.
[*(i) and (ii)* See Secs. 11 and 12. *(iii)* See Sec. 6 part 2 *(iv)* See Sec. 8.]

21. *Can trade unions force wages above the marginal worth of labour ? If so how far ?* [See Sec. 12.] *(Dacca 1940 ; Patna 1940)*

Or

How can the trade unions raise the level of real wages ?
(Sardar Vallabhbhai Vidyapeeth 1959)

22. *Write short notes on (a) Trade Unions, (b) Mobility of Labour, and (c) Social Security.* *(P.U. 1958)*
[*(a)* See Secs. 11 and 12 ; *(b)* See Ch. IX ; *(c)* See Sec. 10.]

CHAPTER XXII

FACTOR PRICING : INTEREST

"Money Breeds Money"

1. **Meaning of Interest.** What is it that catches your eye when you enter a big factory ? It is the machine and not the man behind it. Huge and powerful, it must have cost a very large amount of money. And there are many of these machines in a factory. We cannot expect one man alone to buy them out of his own pocket. Hence capital has to be borrowed for the purposes of large-scale production. *The payment made to its owner for the use of capital is called 'interest'*. In old times, this factor was not so important. The two primary factors, man and nature, were much more important. Nowadays capital has come into prominence and the part played by it in production is growing in importance with the passing of years. This has given rise to a number of problems.

2. **Interest in the Past.** Interest was condemned for ages as immoral. Aristotle was probably the first to raise his voice against it. He said, "Money is barren and can have no legitimate child." Moses prohibited Jews from charging interest among themselves. Christianity in its early days ran it down. Throughout the Middle Ages the Church attacked it and forbade Christians from charging interest. The Jew who lent money to the Christian was looked down upon. Shakespeare's Shylock and Scott's Isaac[1] are typical examples of villains. They are hated because they charged high rates of interest. Islam, too, carried on campaign against interest. In India also the *Sahukar* is looked down upon.

In those early stages of the development of society, this cry against interest was justifiable because loans borrowed were for consumption. The borrower was in difficulties. The man in need, the poor widow, the hungry orphan and the starving person had to borrow just to live. Such loans were barren and interest on them could not be justified on moral grounds. To charge interest in such cases meant that man was exploiting man, and was trading in human misery. Hence, 'usury' laws were passed in those times to defend the debtor against the greed of the money-lender.

3. **Interest To-day.** *Justification of Interest.* Times have changed. The modern borrower is not a helpless victim of the moneylender. He is powerful. He has ideas. He borrows peoples' savings to put those ideas into effect. His efforts result in further production of goods. In the process he makes large profits from borrowed funds. Hence he feels no difficulty in paying interest. It

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1. Shylock is a character in Shakespeare's *Merchant of Venice*, Issac in Scott's *Ivanhoe*. The students may read the first in Lamb's *Tales* and the latter in any well-known edition of Sir William Scott's novels.

is obvious that there is nothing immoral in the owner sharing profits gained with the help of his money and charging a price for its service.

Even nowadays, in poor countries, like India, the humble peasant needs money on the occasion of a marriage or a death in the family. For this he has to resort to the village *mahajan* who, however, exploits his need and charges heavy interest. The *mahajan* takes advantage of the borrower's illiteracy and robs him further by keeping false accounts. To protect such needy borrowers against the *Sahukar*, the State has passed in India and elsewhere laws which not only keep down the rates of interest but also compel the *Sahukar* to keep proper accounts. Co-operative credit societies have also been started to encourage habits of thrift amongst farmers as well as to underbid the village Shylock.

It may be mentioned that such laws are good. But if they discourage savings they will stand in the way of investment in productive enterprise.

(*b*) *The Socialist view of Interest.* Nowadays, too, there are people who object to interest though on different grounds. It has been recognised that loans in the past were borrowed for consumption while today they are borrowed mostly for productive purposes. The ground for criticism has, therefore, shifted. In modern times it is Socialists who attack interest. They claim that the capitalist is a mere idler, who often inherits property and lives idly on it. He is not useful to society and he has not earned the right, they assert, to receive interest for capital. Capital is the result of the work of labour and has been filched from it. Interest is thus robbery. Socialists, therefore, advocate the abolition of all private property and want to change the present economic structure of society. Thus they stand for abolition of interest.

It may be pointed out in conclusion that the present attack on capital is by people who do not reason clearly. Capital is essential for the modern roundabout process of production. It is needed to satisfy the needs of the huge population of the world. The Socialists may have a quarrel with capitalism but they have no legs to stand on when they condemn capital as such. Capitalism may be bad but capital is not only good and useful, it is also essential. The objection is really to interest going into private pockets.

(*c*) *Regulation of Interest.* We have already learnt that today interest on productive loans is nowhere prohibited. Almost all modern countries have, however, made laws for the protection of the poor borrower. France, England, the U.S.A., and India—everywhere we come across laws against usurious loans. Maximum rates are laid down, while co-operative credit too is also used to keep the rates of the village money-lender down.

4. **Gross and Net Interest.** Distinction may be made between gross interest and net interest. What a man pays to his creditor periodically for the use of capital is called interest in everyday speech. But the whole of this payment is not the true price for the use of capital. It contains other elements too. It is better to call

this payment 'gross interest'. Of this, 'net interest' is not a part. Gross interest consists of the following items :—

(1) *Insurance Against Risk.* When money is lent, there is some risk of its not being returned. The borrower may prove a cheat or he may not be in a position to pay back. The risk may thus be a personal risk or business risk. The lender, therefore, expects a reward *in proportion to the degree* of risk involved. This is one of the reasons why the money-lender in Indian villages charges high rates of interest from the peasant. For the same reason the lender asks for security. It may be jewellery, house, or land. Modern banks too usually demand a security. A part of this payment is insurance against risk.

(2) *Reward for Management.* The money-lender has to keep a record of all repayments and charges. He has also to remind his debtors by post and through personal visits. He deserves some payment for this kind of work. This is whole-time job and he must receive remuneration for this.

(3) *Payment for Inconvenience.* Many times the lender charges a higher rate of interest if he is not sure of the interest and principal *being repaid in time.* To pursue evasive clients for payment is awfully troublesome. A part of gross interest paid is to compensate the lender for this inconvenience. The inconvenience lies in this that the lender may not get back the money when he needs it or he gets it at a time when he cannot invest it safely. In the first case, he may have to borrow himself and, in the second case, he may lose interest. In both cases he must compensate himself by charging over and above pure or net interest.

(4) *Net Interest.* After all the above items have been deducted from gross interest ; what is left is the payment pure and simple for the use of capital. This is net or pnre interest. The money invested in 'gilt-edged securities' like Government loans or treasury bonds runs very little risk of being lost. Hence the interest paid on such investments does not include much of the other elements. It is the nearest to net interest.

This distinction between gross and net interest is very helpful. When we find widely different rates of interest being charged in various places and from different persons we know that the differences are in gross interest only. Net interest tends to be the same provided there is perfect mobility of capital ; just as it tends to be uniform everywhere when all payments for inconvenience and risks are deducted. The above diagram illustrates the idea clearly.

5. **Theories of Interest.** Different theories have been put forward regarding interest. These two theories can be grouped

under two headings : (*i*) There are theories which complain *why interest is paid* ; and (*ii*) How is the rate of interest determined. Let us take these one by one.

(*i*) *Why interest is paid.* To explain the why of it, one theory put forward is the Productivity Theory, which says interest is paid on capital because capital is productive The borrower can get additional income from borrowed capital and can easily afford to pay interest. But if capital were free, no interest will be paid in spite of its productivity. Hence it is scarcity rather than productivity which explains interest. This also explains interest paid for consumption purposes.

Another theory is *Abstinence or Waiting Theory.* The sender of capital has to be compensated for abstinence or for not immediately using his own capital. He has to do the waiting. But some people will wait and save even if there is no interest.

Then there is *The Austrian or Agio Theory* according to which interest is paid to equate the future satisfaction to the present satisfaction, for it is said one bird in land is better than two in the bush.

Fisher's *Time Preference Theory* says interest is the price for time preference. This time preference depends on the size of a man's income, the distribution of income over time, the degree of certainty regarding its enjoyment in the future and the temperament and character of the individual. For example people with larger incomes will be able to satisfy their present wants more fully and will therefore discount future at a lower rate. Thus the rates of individual time preference, after having been determined in this way, tend to become equal to the rate of interest.

Keynes *Liquidity Preference Theory* also explains why interest is paid. This theory also explains how rate of interest is determined.

(*ii*) *How is rate of interest determined* ? Among the theories under this category we may mention (*a*) *Classical or Real Theory* which explains interest by productivity from the demand side and thrift from the supply side, (*b*) *Loanable Funds Theory or Neo-classical Theory* which explains interest as determined by demand for and supply of loanable funds, (*c*) *Keynes' Liquidity Preference Theory.*

There is partial truth in each of the theories advanced. But it is only when we combine the different aspects emphasized by various thinkers in different times that we get a complete picture. We learn that interest stands on two legs. It is paid by the borrowers (entrepreneurs) because borrowed capital is productive. It is claimed by the lenders (capitalists) because they have to sacrifice present liquidity or present use of funds for the future. For these reasons interest is charged and paid. *Capital, like other factors, has a demand side as well as a supply side.* We study below some important theories.

6. **Classical Theory—Marginal Productivity Theory.** Interest is the price paid for the use of capital. Like the value of other things, the price of capital is fixed by its demand and supply.

Demand for capital comes mostly from business. There are, of course, some people who borrow for purposes of consumption, litigation or religious or social ceremonies. But the most of the capital is demanded today by entrepreneurs who use it for productive purposes. They will in no case pay for its services at a rate higher than its productivity at the margin. Productivity goes on diminishing as more and more capital is employed in an industry. The borrower compares the prevailing rate of interest with the marginal productivity of capital, *i.e.*, the amount added to total wealth produced by the use of the last instalment of capital. He stops where he feels the productivity to be equal to the interest paid. He will not pay more than the worth of capital to him at the margin. When the rate falls, it becomes worth while to use capital in occupations of lower productivity. Thus demand for it expands. All this is true of borrowers as a whole too. *On the side of demand*, **therefore, interest tends to equal the marginal productivity of capital.**

Supply of capital depends on the will and the power to save. Some saving there is bound to be even if the rate of interest is zero or negative. But this supply will be very small. Much depends upon the rate of interest which induces saving and tempts hidden funds to come out. **The rate ultimately tends to be that which would recompense the marginal saver.** He is the one who is least willing to save but is just tempted to do so by the prevailing rate of interest—but whose saving is needed to complete the demand. It is seen that when the rates of interest are high, more capital is saved ; just as more is saved in a country where there are greater banking facilities and where peace and plenty prevail.

Conclusion. Under conditions of full competition, **the rate of interest tends to settle at a point where marginal productivity and inducement for the marginal saver, both measured in terms of money, are equal.** The forces of demand and supply interact. If demand is strong, interest rate will rise, and *vice versa*. Equilibrium will be established where demand and supply balance.

Classical theory is also called Real theory of interest because it is based on real forces on demand and supply side, *i.e.*, productivity on the side of demand and thrift on the side of supply. It seeks to balance the productivity of capital goods on the one hand and saving or supply of capital goods on the other. Interest on capital has to be paid in order partly to induce people to postpone consumption and partly to induce them to risk their savings in business. The more consumption they have to postpone, the greater must be the inducement or interest offered. The actual rate of interest is determined by investment (demand side) and saving (supply side). The equilibrium rate of interest brings savings and investment into equality.

7. **Loanable Funds Theory or Neo-Classical Theory.** According to Loanable Funds Theory, the rate of interest is determined by the equilibrium of the demand and supply of loanable funds in the credit market. Demand for loanable funds comes from those who wish to invest or hoard or dissave. Supply depends on

savings, liquidity preference, dishoarding, bank credit, etc. The rate of interest is determined by the equilibrium between total funds demanded and total funds offered in the capital market at any given moment.

8. **Liquidity Preference Theory**. According to this theory, the rate of interest is a payment for parting with liquidity. Liquidity refers to the convenience of holding cash. Everyone in this world likes to have some money with him for a number of purposes. This constitutes his demand for money to hold. The sum-total of all individual demands forms the demand for money for the economy. On the other hand, we have got a supply of money consisting of coins plus bank notes plus bank deposits. The demand and supply of money, in themselves, determine the rate of interest.

Money may be demanded to satisfy a number of motives. These are :—

(*i*) *Income Motive.* We get income only periodically. We must keep some money with us till we receive income next. Otherwise how can we carry on transactions ?

(*ii*) *Business Motive.* It takes some time before the businessman can sell his product in the market. But he must pay wages to the workers, cost of raw material, etc., now. He must keep some cash for the purpose.

(*iii*) *Precautionary Motive.* Everyone lays by something for a rainy day. Some money must be kept to meet unforeseen situations and for emergencies.

(*iv*) *Speculative Motive.* Future is uncertain. Rate of interest in the market continues changing. No one can guess what turn the change will take. But everybody hopes, and with confidence, that his guess is likely to be correct. It may or may not be so. Some money, therefore, is kept to speculate on these probable changes to earn profit.

Money demanded for all these motives constitutes demand for money, or liquidity preference. Liquidity preference means how much *cash* people *like* to keep with them at a particular time. Higher the liquidity preference, given the supply of money, higher the rate of interest ; and *vice versa.* Further, given the liquidity preference, larger the supply of money, lower the rate of interest, and smaller the supply of money, higher the rate of interest.

We see, thus, that according to liquidity preference the rate of interest is purely a monetary phenomenon. Productivity of capital has very little though indirect say.

9. **Effect of Economic Progress on Interest.** As society advances normally, there arise greater facilities for saving. There are also more chances for saving capital in such communities because in their case the difference between consumption and production is greater. Thus the rate of interest tends to decline.

On the other side, there are, no doubt, ever-increasing chances of profitable investment of capital. Demand is always expanding. Wars cut short the supply by destroying huge amounts of capital and replacements are gradual. The rate of interest thus tends to rise.

The development of productive capacity leaves a bigger surplus for use as capital even though consumption increases. People in general have an increased capacity to save due to higher incomes.

Lastly, there are always people who will save without any regard to the rate of interest because they earn more than is necessary to satisfy their immediate needs. This number increases with peace and security, though their savings are too small to satisfy the need for capital. Hence, on the whole, effect of economic progress on interest is to lower it.

10. **Will Interest Fall to Zero ?** The factors mentioned in the above section tend to bring down the rate of interest. There is no danger, however, of its ever becoming actual zero because at no time can the surplus become so large that marginal productivity will drop to zero. Long before that happens, people would prefer to buy consumption goods which would diminish the supply of capital and increase its demand. Further, there will always remain a gap between the present and the future. Present satisfaction will *always* exceed future satisfaction and this excess of satisfaction in the present results in interest.

That the rate of interest cannot fall to zero is easily explained by the liquidity preference theory of interest. What satisfies a man better than actual cash in his pocket ? The alternative of holding cash is lending, buying a government security, buying a house, and so on. These alternatives are not as attractive as the money itself. We always have some preference for cash because of its immediate and ready convenience. How can, then, the rate of interest fall to zero ?

WHAT WE GATHER FROM THIS CHAPTER

Meaning of Interest. Interest is the share of capital, the third important factor in national dividend. It is payment for the use of capital.

Interest in the Past was paid almost always by those who were forced to borrow for consumption. That is the reason for its frequent condemnation.

Interest Today.

(*a*) *Justification.* Most of the borrowings today are for productive purposes, and are used as capital. Producers gain from the use of capital, so it is not unreasonable if they pay for its use.

(*b*) *Socialist View.* Socialists condemn capitalists as drones and recommend abolition of interest. But to condemn capitalists is not to condemn capital.

(*c*) *Regulation of Interest.* In many agricultural countries, maximum rates of interest are laid down by law.

Gross and Net Interest. Gross interest includes—

(*i*) Insurance against the risk taken, *i.e.*, an element of profit.

(*ii*) Wages for the labour of management and record-keeping.

(*iii*) Payment for inconvenience.

(*iv*) Pure or net interest for the use of capital.

Different rates of interest are due to the differences in items other than net interest which tends to be the same in all investments.

Why is Interest Paid ? Interest is claimed because present satisfaction or liquidity has to be given up for some time in the future. It is also paid because capital is helpful in production.

Rate of Interest. Modern theory. Rate of interest is determined by demand and supply. Those who borrow are prepared to pay to the marginal

productivity of capital. On the supply side, the rate has to be such as to recompense the marginal investor. The actual rate is settled at a point where marginal productivity and inducement necessary to tempt the marginal saver, measured in terms of money, are equal.

Liquidity Preference Theory. According to this theory, rate of interest is a payment of parting with the convenience of holding cash. Give the liquidity preference, more the supply of money, lower the rate of interest, and less the supply of money, higher the rate of interest. On the other hand, given the supply of money, higher the liquidity preference, higher the rate of interest and lower the liquidity, preference, lower the rate of interest.

Effect of Economic Progress on Interest. Interest tends to decline with economic advancement. Demand for capital keeps on increasing but so do the facilities and willingness to save. The normal surplus of earning over spending expands so that sufficient supply of capital may be forthcoming. But although the rate of interest tends to fall, there is no danger of its falling to zero because saving would begin to decline before that. Besides, the difference between present and future must remain.

CAN YOU ANSWER THESE QUESTIONS ?

1. *Define interest. Do you think its payment is justified ? Why has it been often condemned ?* [See Secs. 1, 2 and 3.]

2. *Explain the nature and necessity of interest. How is the rate of interest determined ? Is it advisable and, if so, practicable, to control the rate of interest by legislation ?* (*J. & K. 1960*)

3. *Distinguish between Gross Interest and Net Interest and point out the obstacles in the way of regulation of interest by legislation.*

(*C.U. 1927 ; Agra 1941 ; All. 1937 ; Dacca 1942 ; U.P. Inter Board 1949 ; P.U. 1940, 41*)

[See Sec. 4.]

[The main obstacles in the way of regulation of interest by legislation arise from the illiteracy, ignorance and extreme poverty of the borrower which lead to deliberate evasion by mutual consent of the borrower and the lender.]

4. *Distinguish between gross interest and net interest. Explain how the rate of interest is determined.* [See Secs. 4 and 6.] (*P.U. 1958*)

5. *Distinguish between "gross" and "net" interest. Why is interest paid ?* (*Utkal Inter Arts 1959 ; Utkal Inter Arts 1960 Suppl. ; Delhi H.S. 1959*)

[See Secs. 4 and 5.]

6. *Why does the rate of interest differ from person to person and place to place in your country ?* (*P.U. 1953*)

[The rate differs to (*i*) distance between the debtor and the creditor, (*ii*) period of loans, (*iii*) the state of the borrower, (*iv*) productivity, and (*v*) the risk involved.]

7. *Why is interest paid ? Account for the fact that the Government of India is able to borrow at a lower rate of interest than an agriculturist.* (*Ajmer 1935*)

[See Secs. 4 and 5.]

8. *Distinguish between gross and net interest. Why are the rates charged by the village money-lenders in India higher than the rate charged by banks ?* (*Rajasthan Pre-Univ. 1960*)

9. *If you had Rs. 100 to lend, what interest (roughly) would you accept from :—*

(*a*) *A village farmer.*
(*b*) *An industrialist in a town.*
(*c*) *A co-operative bank.*
(*d*) *Post-office.*
(*e*) *An artisan in the village.*
(*f*) *A physician with a good income.*

Can you explain why ?

[The lender charges along with pure interest some amount for risk, for inconvenience in realization and for account keeping. That

is why the village farmer has to pay the highest rate as interest, the town industrialist less, the co-operative bank still less and the post-office the least of all.]

10. Discuss :—

"Interest is the reward of saving." (*P.U. 1941*)

"Interest is the price of time." (*P.U. 1942*)

"Interest is the price of abstinence." [See Sec. 6.]

11. How is the rate of interest determined ? "Interest is determined by the demand for and supply of capital." Explain.
(*C.U. 1946, 49 ; C.U.B. Com. 1940 ; Agra 1938 ; All. 1938 ; U.P. Inter Board 1940, 51*)
[See Sec. 6.]

12. What is interest ? How is the rate of interest determined ?
[See Secs. 1 and 6.] (*Gauhati 1958*)

13. State (giving reasons) how the rate of interest in the rural areas of your State will, other things being the same, be affected by the following :—

(*i*) *A successive failure of crop.*

(*ii*) *An imposition of restrictions on the granting of loans.*

(*iii*) *Improvement in agriculture.*

[(*i*) It will rise due to the greater demand for loans and uncertainty.

(*ii*) It will rise due to the risk of being caught.

(*iii*) It will fall due to greater saving.]

14. Interest is determined by marginal productivity of capital, its marginal utility or its supply price. Give your own views. (*P.U. 1946 Suppl.*)

[By the marginal productivity and supply price together. Marginal utility does not have any great effect because of the small amount of borrowing for consumption. Also See Section 6.]

15. How does the rate of interest affect saving ? Would people stop saving if the rate of interest were reduced to zero ? [See Secs. 7 and 8.] (*P.U. 1935*)

[Ordinarily higher the rate of interest the larger is the saving, and *vice versa*. In certain exceptional cases, however, saving may be reduced if interest rises, for instance, in the case of a man who wants a fixed income from his saving. Some people will save even if the rate of interest is reduced to zero, since saving is not made simply for the sake of earning interest. It is often made for making provision for the family in the future.]

16. What part do waiting and time preference play in the determination of rate of interest ? (*Sardar Vallabhbhai Vidyapeeth 1959*)

17. What will be the effect of economic progress on interest ? Will the rate of interest fall to zero ? [See Secs. 9 and 10.] (*P.U. 1931*)

18. Fill in the blanks by using one of the words in brackets.—

Giving the liquidity preference, the larger the supply of money, ...*higher/lower* the rate of interest.

CHAPTER XXIII

FACTOR PRICING : PROFITS

"The Race for Riches"

1. **Definition of Profits.** You are all familiar with the term 'profits'. It is quite a commonplace word, but different people use it in different senses. In Economics, however, the term has a precise meaning. **Profits may be defined as the net income of a business after all the other costs—rent, wages and interest—have been deducted from the total income.** Profits are, therefore, uncertain and vary from person to person. They may become zero, when costs are equal to income and if the costs are higher, profits may actually be converted into loss.

Pure profit is the reward of entrepreneurial functions. It is what an entrepreneur gets purely as an entrepreneur. What he gets as a landlord, manager or capitalist is deducted from the total profits. *Pure profit is an amount which accrues to the entrepreneur for assuming the risk inseparable from business.* It is a reward for assuming the *final responsibility*, a responsibility which cannot be shifted to anybody else.

A practical example will show you how profits are calculated. Let us suppose that Mr. S. Chand starts a bookshop, with a capital of Rs. 25,000. We further assume that the premises belong to him and his nephew works for him without receiving any wages. The following balance sheet shows income, expenses and profits of the business for one year :—

		Rs.
1.	Total sales	1,00,000
	Cost of Goods sold	75,000
	Gross Profit	25,000
2.	Expenses :	
	(*a*) Rent (implicit)[1]	2,400
	Wages of salesman (implicit)[1]	2,400
	(*b*) Interest on owner's capital at 5% (implicit)[1]	5,000
	(*c*) Interest on bank loans	1,200
	Total	11,000
3.	Depreciation for soiled goods	2,000
	Insurance charges	1,000
	Total	3,000

1. No rent is paid as the premises belong to the owner, no wages are paid to his nephew and no interest is paid for the use of this capital. But they have all to be allowed for.

4.	S. Chand's wages of superintendence (implicit)	5,000
	Total deductions	19,000
5.	Net or pure profit	6,000

This account shows the nature of profits. The meaning of gross profits too is clear. There are factors for which S. Chand does not pay. They belong to him, but ordinarily they could not have been obtained without payment. Therefore, these payments, though implicit, must be deducted to find out the net pure profit of the business.

True Profit is thus a Residual Element. Profit is arrived at after the other three agents of production have received their share out of the national income. It may become zero or even negative temporarily. But in the long run it must be positive, for otherwise the entrepreneur will give up his independent activity and take to service for wages.

2. **Gross Profits.** We are now in a position to analyse gross profits. They are the difference between total sale proceeds and total expenses over a year and include the following besides net profit :—

(*a*) *Rent of the employer's land or premises.* Had similar premises been taken on rent, the amount would have been added to costs. An equal figure should be deducted from gross profit.

(*b*) *Interest on entrepreneur's capital.* The interest on borrowed capital is usually deducted before profits are worked out. Hence the interest which the owner's own capital would have earned elsewhere, should be taken out before we can determine net profit.

(*c*) *Wages of management.* The entrepreneur may be himself providing the service of management. If he had been employed elsewhere he would have earned some wages. An equal amount has, therefore, to be deducted before net profits can be discovered.

(*d*) *Maintenance charges.* It is but reasonable that capital should be maintained intact. Worn-out prices should be replaced at the proper time. To do this is necessary to maintain a depreciation fund. All expenses for this purpose should be deducted out of gross profits. If this is not done profits will appear to be large for a few years but one day the business will fail.

(*e*) **Net Profits.** If we deduct from gross profits the above items, we shall get pure or net profits. The entrepreneur is entitled to the following different kinds of payment which form a part of his net profits :

(*i*) *Reward for risk-taking.* Every business faces some risk of loss. But the risk of loss from market fluctuations has to be borne by the entrepreneur himself and he will shoulder it only when he has hopes of being paid for it.

(*ii*) *Reward due to a monopolistic position.* A particular entrepreneur may earn extra income due to his control in the market over most of the supply of the commodity he produces.

(*iii*) *Reward for better bargaining.* If a businessman is skilful in making bargains he earns more.

(*iv*) *Windfalls.* A sudden change in market conditions may bring in a large gain just by chance. For instance, manufacturers of arms and ammunitions may earn much, if war breaks out.

3. **Theories of Profits.** Several theories have been put forward by way of explanation of profits. We shall notice them only very briefly in this elementary study.

Rent Theory of Profits. First there is the Rent Theory of Profits propounded by Prof. F.A. Walker of America. According to this theory *profits are of the nature of rent.* Prof. Walker thinks that just as rent is due to difference in the fertility and situation of land, similarly profits are the result of difference in ability and place in life of entrepreneurs. Profits are measured upward from the marginal employer who earns no profits exactly as rent is measured upward from the no-rent land on the margin. Also, just as rent does not enter into price, profits do not form of price. This is Prof. Walker's theory of rent. This theory is not wholly accepted. There can be no-rent land but there cannot be any no-profit employer. If he does not get profit in the long run he will join the ranks of salaried employees. Besides, rent does not form part of price but profits do. Nevertheless, profits do contain an element of rent because of differences in ability of the entrepreneurs. But they are not *entirely* of the nature of rent.

Dynamic Theory. This theory is associated with the name of J.B. Clark who is of the opinion that there can be no profit in the static world where size and composition of the population, the number and variety of human tastes and desire, techniques of production, technical knowledge, commercial organisation, etc., remain constant. In a world like this, everything is known and is knowable and can be foreseen. There is no risk and no profit. Costs and selling price are always equal and there can be no profit beyond wages for the routine work of supervision. But our real world is not static ; it is dynamic. Changes are constantly taking place. The entrepreneur who can foresee changes, can make profit. Thus, according to Clark, profits arise simply because the world is dynamic.

Reward for Risk-bearing. According to Prof. F.B. Hawly, it is not change but risk, which is the cause of profits. The entrepreneurs will not risk their capital unless profit is expected. Risk arises from the marketability of the product. Profits are a reward for risk-taking or risk-bearing.

Reward for Uncertainty-bearing. This theory has been put forward by Prof. Knight. He says profit is earned by bearing uncertainty and not risk. Certain risks are calculable and can be put in the costs and other risks are insurable and will be borne by the insurance companies. But genuine business risks arising from shifts in demand or other causes cannot be foreseen. These unpredictable risks are described as uncertainties, and it is for bearing these uncertainties, that the entrepreneur is rewarded with profits.

Thus a number of theories have been advanced to explain profits. When we consider them we see that each of them errs in laying too

much emphasis on one aspect and ignoring others. Really profit is an income composed of a variety of items. An entrepreneur is to be paid for the many functions he performs. He is the brain behind production. As such he plans, decides, selects, bargains, takes risks and faces uncertainty. Profits contain elements paid for each of these functions and they are so intermixed that it is difficult to split them up. They are the residue left after all kinds of expenses have been met.

It should be remembered that the people who possess these qualities are scarce. Had such persons been unlimited in number, profits would have fallen to no more than daily wages. Capable entrepreneurs are scarce, because natural gifts are rare and because suitable facilities are not available to train them up. Owing to this scarcity entrepreneurs' earnings are high.

A theory of profits will be satisfactory only when we take into account all these circumstances.

In conclusion we may say that the two important sources of profits are : (*i*) Uncertainty as to the result of entrepreneur's decisions ; and (*ii*) position of advantage which some firms enjoy in the market. Uncertainty is due to the fact that we are living in a changing, dynamic business world. In a static and competitive economy, there is no uncertainty and hence no-profit. Dynamic conditions arise from the innovations made by the entrepreneurs themselves and external changes, *i.e.*, not due to his initiative such as due to trade cycles. Profits arise not only from uncertainty and dynamic conditions but also in some cases from static conditions when a firm happens to enjoy some peculiar advantage with respect to demand or cost or from monopoly or from windfalls or some beneficial accidental occurrences. Thus profit is a very complex phenomenon.

4. **Why Profits Vary.** The main reason of inequality in profits is the differences in ability of entrepreneurs. Ability is mainly God-given. Some persons can make better bargains, others are better organisers, still others are better judges of men, and so forth. It is this reason which mainly causes differences in profits. There are a few other reasons too. For instance, one person may have enough capital to finance a business, another may not. Again, one entrepreneur may have at his disposal secrets which are not available to his rivals. He would then be in a position to earn larger profits. It may be mentioned in the end that profits tend to decline due to competition but never become zero as otherwise all enterprise would end.

5. **Socialist View of Profits.** Profits have been condemned by Socialists. They say that all wealth produced in the country is the result of the efforts of workers and as such it belongs to labour. The entrepreneur and capitalist serve no useful purpose, they assert. Hence profits and interest mean exploitation and robbery of labour. Marx, therefore, stood for abolishing them wholly.

Exploitation of workers is bad. But it does not mean that the entrepreneur does no useful work and deserves no reward. On the contrary, he performs very important functions. He shoulders risks which no one else will shoulder and which cannot be insured

against. These risks include the possibility of loss from changing demand, from changing customs and habits, discovery of substitutes, foreign competition, and from political and industrial troubles. If the entrepreneur is not going to be paid for these risks, he would prefer to work for wages. Profits stimulate industry and progress. To condemn them would be to condemn boldness, wisdom and organizing ability. This would be stopping all economic progress.

Yet no other feature of capitalistic society has been so severely criticised as profits. The losses incurred by the entrepreneurs are forgotten while his occasional large profits prick the eye.

A more correct line of criticism would be that profits create inequalities and bring power to one class of people. Besides, the owner is not the only risk-bearer. The wage-earner has to face, equal if not the greater, risks from the uncertainties of business. He, therefore, naturally claims a share in the running of the business. In a socialist enterprise, these inequalities and problems are absent. But other difficulties of a different kind present themselves and call for solution in a socialist system too. Profits cannot be abolished, but there is a good case for limitation of dividends.

WHAT WE GATHER FROM THIS CHAPTER

Definition of Profits. Wide divergence of opinion is found concerning profits. A layman says that 'profits' are the excess of receipts over expenses. This amount, as a matter of fact, should be called 'gross profits'.

Gross Profits include :—

(1) Rent of employer's own land.
(2) Interest on the capital invested by himself.
(3) Wages for his labour of management.
(4) Depreciation of machinery and other fixed assets.
(5) Pure or net profits of the share proper of the organizer. This share goes to him for his risk-taking, for his monopolistic position, for his better bargaining ability and for windfalls. He earns this for taking the *final* responsibility of the business.

Profits Resemble Rent. Prof. Walker of America considers profits to be of the nature of rent. There is, he says, a marginal producer who earns no profits. Other employers earn profits because of their superior ability above the marginal one. But this theory is not a complete explanation of profits.

Profits Explained. Profits are an income composed of various items like payment for planning, risk-taking, organizing, etc. Also, profits exist because of the natural scarcity of capable entrepreneurs.

Why Profits Vary. They vary because abilities differ, also because one enterpriser may have more capital, certain secret devices, and so on. Profits tend to decrease but would never become zero.

Should Profits be Condemned ? Socialists and Communists call profits a robbery of the produce of labour. While admitting the case against labour's exploitation we must say that the above view is one-sided. The organizer has an important function to perform. He bears the uninsurable risks. He is a pioneer of progress.

CAN YOU ANSWER THESE QUESTIONS ?

1. *Explain the nature of profits. Distinguish between gross profits and net profits.* [See Secs. 1 and 2] *(Delhi H.S. 1958)*

2. *Distinguish between gross and net profit. How is the latter determined ?* *(P.U. Higher Secondary 1962)*

3. *State and explain the constituent elements of gross profits. Enumerate the services for which profits are a reward.* *(J. & K. Inter 1958)*

4. Why does the rate of profits vary from industry to industry and from time to time within an industry ? (*P.U. 1940 Supp.*)

[It is due to differences in the items of gross profits being included. One producer might have used his land or capital and the other none. Then, the degree of risk varies and also liabilities. See Sec. 4.]

5. Is profit necessary ? Distinguish between gross and net profit. (*Ajmer Inter 1960*)

6. Are profits of the nature of Rent ?
[See Sec. 3.]

7. Differentiate between gross and net profits. Are profits justifiable ? (*Bombay 1954*)

8. Define 'profit'. Explain how profit is determined in a joint stock company. (*Gauhati 1957*)

9. What are constituent elements of Gross profits ? Do profits form a part of the normal expenses of production of a commodity ? (*P.U. 1956*)

10. Write notes on :— (i) Gross profits, (ii) Producer's surplus. (iii) Uninsurable risks.

[(*i*) See secs. 1 and 2. (*ii*) The surplus above cost of production earned by the super-marginal producer.

(*iii*) Risks of changing fashions and trends of market which have to be borne by the organizer.]

11. Critically examine the Socialistic view of profits as a share in distribution. [See Sec. 5.] (*C.U. 1922*)

12. Distinguish between profits and interest. Analyse the former.
(*C.U. 1939, Agra 1942, All. 1940, Dacca 1933, Delhi 1940, Nag. 1942*)
[See Sec. 2.]

13. "Profits are the reward for enterprise." Explain briefly.
[See Secs. 1 and 3.] (*P.U. Inter Board 1949*)

14. Explain the nature of business profits and point out whether such profits form a part of the cost of production. [See Secs. 2 and 3.] (*Delhi 1953*)

15. Do profits form a part of costs of production ? (*Delhi 1955*)

16. State the various theories of profit. Which of these do you accept and why ?

17. Show the relation between profits and wages. (*Delhi H.S. 1961*)

CHAPTER XXIV

MONEY

'The rod that measures'

1. **Ages ago.** In ancient times, man's wants were but few. He led a simple life and mainly lived on hunting and fishing and satisfied all his wants himself. As time passed, his needs increased and his self-sufficiency disappeared. He began to exchange some of the things he produced for those which his neighbours possessed. Such direct exchanges, without the use of money, are called *BARTER*. It means buying goods with goods. To-day barter is carried on in civilised communities. Rarely do we come across exchanges of this type. Little children in a school might occasionally 'swap' a pencil for an old pen, or a farmer's wife in some remote village might secure some salt or a match-box from the local *bania* in return for grain. In the heart of dark Africa or in Australia, the Bushmen still use barter methods to satisfy their few simple needs. But as a normal form of exchange, barter was given up long ago by the civilised world.

To-day. To-day we cannot think of life without money. It is not imaginable. Our needs are far too many and far too complex to be satisfied through a direct exchange of goods. How shall we pay for the many small things, like cakes of soap, vegetables, fruits, pens and paper, which we need every hour of our life ? In what form to pay for a bus ride or our college fees ? With pots of butter ? With a bundle of hay ? With a leg of mutton ? It would be most inconvenient, nay impossible. If you allow your imagination to run free, you will think of many funny situations which will make you laugh till your sides ache. "A strange world", you will exclaim, "where there are no coins and no notes." Lucky for you, those times are gone and that world is no more !

2. **Inconveniences of Barter.** Thus we see barter was very inconvenient. If we had to satisfy all our needs by this method to-day, life would become a big trial. Barter prevailed in old times in primitive conditions. It is still occasionally used when the regular monetary system breaks down as it did in Russia after 1917 Revolution. Nearer home it made its appearance on the border between India and Pakistan as regular trade broke down over differences on the fixation of the price of the Pakistan rupee in terms of the Indian rupee. Normally, however, all over the civilised world today, every human action is closely linked with money. Money in the form of coins, notes and cheques is indispensable for the existence of the modern economic order and for the conduct of our ordinary business of life. A change to a barter economy would, therefore, involve us

in too many inconveniences. We briefly mention some of them below :—

(1) *Barter calls for a double coincidence of wants.* When goods have to be directly exchanged for goods, it is essential that both parties should stand in need of each other's possessions. A shoe-maker may need a hat, but what if the hat-maker does not want any shoe ? In that case, a lot of time and energy may have to be spent in finding out a person who not only has a hat but is also prepared to part with it for a pair of shoes. No exchange can take place unless one party precisely wants what the other can spare and can spare what the other wants. The greater the number of transactions of such type needed by a community the greater the difficulties to be faced in discovering the double coincidence of wants.

(2) *There is the difficulty of sub-division.* Barter needs the units of sale and purchase to be adjusted. After the rate of exchange between the two bargaining parties is settled, there is another difficulty to be got over. Suppose 'X' has a cow and wants some salt. Obviously he cannot split his cow without losing its value. If, therefore, he is prepared to accept salt for his cow, the quantity will be greater than he can use immediately. 'X' will then have to find a person who needs salt and who has some other goods which 'X' can profitably use. The search for such a person involves a great deal of bother and inconvenience.

(3) *Barter lacks a common measure of value.* Let us suppose that a person has been found who has in possession what 'X' needs and is also prepared to part with it. There is still another difficulty calling for a solution. At what rate should the two commodities exchange ? Much time and energy will be lost in striking a bargain specially over goods which do not possess a common accepted standard, and even then both the bargaining parties will remain dissatisfied at the end. In money economy, everything is exchanged for money. Money thus becomes a common measure of value and an idea of relative value of things comes to be formed. This helps in the establishment of a rate of exchange. In the barter economy, everything exchanges for everything else every time. There is no common medium of exchange or measure of value. Hence it is difficult to establish a rate of exchange.

(4) *Barter does not provide a good 'store of value'.* Goods cannot be stored for a long time. They lose in value. Some of them wholly perish after some time. Think what would happen if each of you brought a little pig, a fowl, a calf or a goat to pay your college fees. The poor professor will have to carry a whole zoo of them. It would be a job to feed the birds and beasts and look after them, and, if a plague came, the whole stock would be lost in no time. Such things cannot be stored as money can be.

3. **Emergence of Money.** As barter was an inconvenient method of exchange, people were compelled to select some commodity *which was most commonly accepted* in that area as a medium of exchange. Thus a large variety of goods came to be used as money, wheat, corn, tobacco, skins, beads, *cowrie* shells, gold dust, etc. Even live animals served as a medium of exchange at different times in different

parts of the world according as any one of them was generally accepted in exchange for other things. In living memory of some of us, *cowries* were frequently used in the villages in India to make small purchases. Money has now taken their place. Even to-day, however, each nation has its own monetary system and the money of one is usually not acceptable outside its borders. In fact, it is this reason which makes international trade different from internal trade.

Gradually, the most attractive metals gold and silver, were adopted as money almost everywhere. Rulers in all lands found making coins a profitable business and took it into their own hands. Later, coins were replaced or supplemented by paper notes for reasons of economy and convenience. Still later, cheques, drafts and promissory notes came to be used in addition to notes. Now, bank deposits which are only entries in the bank ledgers serve as the most important type of money. Thus different stages in the development of money are: commodity money, metallic money, paper currency and finally bank money.

We are now in a position to define 'Money' precisely. It is anything which is generally accepted in exchange for other things and which can discharge all obligations, past and present. For money general acceptability is essential. Thus currency notes are money but note cheques. Cheques are not accepted by all. They are accepted only from known persons in India. In England, however, even cheques are regarded as money since they are generally acceptable.

4. **Qualities of Good Money.** We have seen that gradually all the various inferior media of exchange were given up in favour of gold and silver. These two metals possessed all the virtues which good money should possess to serve successfully as standard money. These virtues may be briefly summed up as follows :—

(*a*) In the first place, standard money must possess the quality of *general acceptability*. Precious metals have always been desired for their own sake. Ornaments, plate and jewellery are made of them. People invested their savings in gold and silver in India as they could be more easily concealed in times of danger. In modern times, however, life is secure and stable. People have full confidence in governments and the banks. Hence it is no more essential that money material should be desirable for its own sake. All the same it is essential that money should be generally acceptable to one and all. Gold and silver have this great virtue.

(*b*) In the second place, our money should have the quality of *easy portability*. Gold and silver have *large value in small bulk*. This is a very important consideration. Just think how very inconvenient wheat, coal or bricks would be from this point of view ! Paper money is even more easily portable. That is the reason why notes and cheques have replaced metallic money in modern times in India and elsewhere to a great extent.

(*c*) Thirdly, *durability* is another essential quality without which the money medium would not serve as good 'store of value'. Gold, silver and other metals possess this virtue. Age and existence

do not affect them much. Coins, a thousand years old, are still in existence and not much the worse for wear.

(*d*) Another desirable quality in a good money material is *uniformity*. If we had to test every coin for its quality and weight, it would be very troublesome. Wheat or cotton would be very bad money for this reason. Different prices of money are so uniform that there is not the least hesitation in accepting any one of them. Gold and silver are ideal in this respect.

(*e*) The usefulness of money material is greatly increased by *divisibility*. Gold and silver are easily divisible into coins of any desired size and weight. You will be surprised to know that they can be beaten so thin that 20,000 coins of either of them placed one on the other would be only an inch high !

(*f*) Another desirable quality in a good money material is *cognizability*. Gold and silver can be easily recognised. You will seldom confuse them with other metals. It is easy to recognise a good coin and distinguish it from a bad one.

(*g*) Besides, gold and silver are *malleable*. They can be easily beaten into any shape and given any impression. A government stamp can be put on them to help their circulation as coins. Diamonds obviously do not possess this quality.

(*h*) All things change in value. Even gold and silver do so, but they possess a *comparatively greater stability of value*. This is a very useful quality in the money-medium we use. The annual output of gold and silver is only a fraction of the total stock in existence. Hence their prices do not fluctuate much.

Now it will be clear why gold and silver have driven out of use all the other commodities used as media of exchange. As the quantity of money needed in the world to-day is very large, there is not enough gold to go round. Hence gold coins are not current anywhere any more. Mostly there are silver coins (or even coins of some inferior metals) helped by paper money as in India. Just as gold and silver replaced other forms of money in the past they are now being replaced by paper money almost everywhere.

5. **Functions of Money.** Money is thus not any particular article but anything which performs certain functions. And what are these functions, then, which money is required to perform ? The old verse answers very aptly when it says :

"Money is a matter of functions four.
A medium, a measure, a standard and a store."

It thus performs four important tasks. Let us discuss these in a little detail :

(1) *Money serves as a medium of exchange* and saves us from the bother of exchanging goods directly for goods. It thus eases a difficult situation and saves us from the inconvenience of double coincidence of wants which makes barter so troublesome. Let us illustrate the point with the help of an example. Suppose I have an exercise book which I want to exchange for butter but the man with butter wants bread and not a book. Therefore it is not possible to exchange my book for butter. In a money economy, things not

wanted by us are sold for money and wanted goods are purchased with that money. In this way consumers and producers are both helped and the result is maximum utility. This function of money is possible only because money is acceptable to everybody.

(2) *Money acts as a measure of value.* Money measures value exactly as a yard-stick measures cloth or minutes measure time. Rupees measure the value of goods for us in India as the pounds do in England and the dollars in U.S.A. Money serves as the standard of value to which all other things are compared. Even gold and silver, in fact, all kinds of wealth, are measured in standard money. Accounts can be kept in it and values of different goods can be compared with its help. The best measure would be one which does not vary. For instance, a yard is always 36 inches in length and it never varies. Unfortunately, the value of money does vary to some extent. But we have not been able to discover a better measure as an alternative in spite of all our efforts.

(3) *Money serves as an excellent store of value.* We have seen that wheat, cotton, cattle and other commodities were used as money in old times, but had to be given up because they grew worse with keeping. This is one reason why precious metals came to drive them out as money. Gold and silver are durable and do not rot with the passage of time. Money is also more stable in value. It is loaned out and serves as capital. But when the value of money changes and prices fall or rise heavily, people suffer much. Look at prices in India today. They are about four times more than in 1939. People with fixed incomes and middle class people are in great difficulties. In spite of the suffering due to changes in the value of money, however, no better alternative has yet been discovered. Luckily such heavy fluctuations are not frequent. Hence under the circumstances money serves as a very good store of value It is durable and steady. Keynes has mentioned several motives for holding money such as precautionary motive, income motive, business motive, financial motive, and speculative motive.

(4) *Money serves as a standard, for deferred payments.* If 'X' enters into a contract to work for payment in the future, he needs an assurance, that there shall be no change in the value of the commodity in which he is to be paid. A large number of transactions made everyday are credit transactions. Huge payments have to be made in the future. Value of money should be stable over long periods if such transactions are to be fair and if needless suffering is to be avoided. Fluctuations in the value of money do great harm. The post-war rise in prices in our country is a case in point. But as we have said above, money may be bad but there is nothing better which can replace it.

(5) We can add still another function which money performs. It *transfers value.* A person can sell his property in one place and, with the money so obtained, he can purchase it in another place. In this way, money can transfer value from one place to another.

6. **Advantages and Disadvantages of Money.** The main advantage is that money removes all the difficulties of the barter

economy. It renders double coincidence of wants unnecessary. It provides a common measure of value.

It is capable of sub-division. It is semetimes said that money is only a medium of exchange and merely saves us from the difficulties of barter ; that the object of production is not money but satisfaction of wants ; and that we labour to acquire money not for its own sake but as a means to satisfy wants. These statements are certainly true. But the ordinary businessman or manufacturer does not think of money in these terms. For instance, a cloth manufacturer does not make cloth with the aim of social service that people may cover themselves, but that he may earn profits. He pays wages to his labourers, not for the reason that they may satisfy their wants but only because these payments are necessary for his profits. Money is the real object of all his activities. He is constantly thinking of 'money costs and money incomes, money gains and money losses'. 'Making money' is the goal, not making cloth. The same is the objective of everybody, be he a trader, businessman, shopkeeper, government servant or a labourer.

Money is thus the central point of all economic life today. Money and prices determine the total amount of material goods that a salaried man or a wage-earner can consume. The modern economic system with its division of labour and large-scale production would have been impossible without the use of money. Huge sums of money, borrowed and loaned, make international trade and transport possible and provide us with most of the goods we consume. All this would be impossible in the absence of money.

Money is a general purchasing power. It gives its possessor a claim on goods which he can purchase in a form and at a time most convenient to him. In this way he is able to maximise his satisfaction. The producer is able to maximise his profit since money enables him to organise a most economical combination of the factors of production and helps him to buy and sell profitably.

Money is beneficial to society in general since on a small basis of cash a vast superstructure of credit can be built up. Optimum distribution of community's resources would have been impossible without the use of money. Trade and industry would have been difficult to carry on.

Thus not only has money removed all the inconveniences of barter, it has proved beneficial to the consumer, the producer and the community in general.

The very ease with which money is borrowed, however, makes it also a source of danger. Speculation, which ends in the ruin of so many people, is carried on with the help of credit facilities provided by banks. The changes in prices which benefit some section of a community at the expense of others, are the consequence of a money economy. Money is responsible for trade cycles which are so harmful to the smooth working of the economic system. We may then agree with Robertson when he concludes that "*Money which is a source of many blessings to mankind, becomes also, unless we control it, a source of peril and confusion*".

7. **Forms of Money.** There are two main kinds of money : (*a*) metallic money or coins, and (*b*) paper money. Money is also classified as (1) Standard money and token money, (2) Representative money, (3) Money of Account, and (4) Credit Money.

Standard Money is that form of money in terms of which all other forms of money in the country are measured. It is unlimited legal tender and is subject to free coinage, *i.e.*, anybody can bring his metal and get coins made of it. Usually its real or intrinsic value is equal to its face value and it is either made of gold or silver, or sometimes both. *Token money* is made of cheaper metal ; it is limited legal tender ; it is not subject to free coinage ; and its face value is greater than its intrinsic or metallic value. The rupee is the standard unit of money in India, but its face value is greater today than its real value. Nor is the rupee subject to free coinage. It cannot, therefore, be called standard money. It is a mixture of the standard and token money.

All kinds of money which are not standard money but can be freely changed into standard money are called *representative money*. Thus the Reserve Bank of India notes are representative money and so are cheques drawn by people on banks.

The *money of account* is a unit in terms of which the accounts of a country are kept. Usually standard money and money of account are one and the same in a country. Thus the rupee serves this double purpose in India, the pound sterling in England, the rouble in Russia, and so on.

The term *credit money* covers government notes and bank notes. They imply a promise by the issuing authority to pay for them to the bearer on demand their full value in the form of standard money. Cheques, promissory notes and bills of exchange used for commercial purposes are also forms of credit money. It may be mentioned that the ordinary person considers government notes as currency, but cheques, etc., as credit money. From this point of view, the Reserve Bank of India notes as well as all kinds of cheques in India are credit money.

8. **Metallic Money.** Metallic money consists of coins made of gold, silver, nickle, or copper. The coins may be (*a*) standard coins, and (*b*) token coins. The *standard coins*, as already mentioned, are (1) unlimited legal tender, (2) subject to free coinage, and (3) have their face value equal to their metallic or intrinsic value.

The proportion of pure metal to weight in the coin is spoken of as "so much fine." The Indian rupee was at one time made of silver, weighed 180 grains and was $\frac{11}{12}$ fine. During the war, new rupees (quaternary coins) were issued $\frac{1}{2}$ fine and in 1947 nickel rupees were issued. The edges of the new rupee are slightly raised to avoid too much wear. In addition, the edge is milled to avoid clipping or filing. All the world over, the state has the right of issuing coins which are made in a government mint. There are mints at Bombay and Calcutta in India.

If the government permits individuals to have their gold or silver bullion freely converted into coins at the mint, it is a case of

free coinage. This system existed in India before 1893 and in England before 1914. Naturally some cost is incurred in making coins. Sometimes the government charges no more than the actual expense of converting metal into coins. This charge is called '*mintage*' or '*brassage*'. If the government charge is higher than the cost it is termed '*seigniorage*'. And if no charge is made and coins are minted *gratis*, the coinage is '*gratuitous*' in addition to being 'free'.

It should be clearly understood that free coinage does not mean necessarily free of charge. It only means that a citizen is free to bring his metal and get coins made irrespective of the fact whether a charge is made or not. The charge may be made directly in cash or indirectly by mixing some alloy with the pure metal brought for being minted. A free coinage is an ideal system as it gives confidence to the users and keeps the total money circulating in the country within limits. Coinage is not free in India any more, although it was so before 1893. Free coinage has been almost universally abandoned.

Token Coins. A coin has value because it is made of valuable metal. It is full-bodied if its face value is equal to the metal contained in it. Sometimes, however, a coin has value only because the government has stamped it. When the value given to a coin by government is in excess of its contents, it is called a '*token coin*'. There cannot be free coinage in the case of token coins. They have a higher face value than the metal they contain. They are also limited legal tender.

Our silver rupee was such a token coin till 1942. Then the price of silver rose so high that the intrinsic value of the rupee grew greater than its face value and it became what is called an 'overvalued coin'. Hence it became profitable for people to melt down rupees and sell the silver contained in them. The old rupees wholly disappeared from circulation and the Government had to issue new rupees (and half rupees) of lesser fineness to enable ordinary business to be carried on. All coins circulating in India are token coins including the rupee, as well as old and new subsidiary coins like the one-anna, four-anna, eight-anna pieces and naye paise coins.

In short, token coins are (1) limited legal tender, (2) not subject to free coinage, and (3) have face value greater than their metallic or intrinsic value. But what is legal tender ?

9. **Legal Tender.** It is money that can be paid to clear one's debts. It is usually backed by government sanction. No one can lawfully refuse to accept any amount of this money. The rupee and half-rupee coins are full legal tender or *unlimited legal tender* in India. They can be offered to an unlimited extent in the discharge of debts.

Subsidiary coins can usually be offered only up to a limited extent and are, therefore, called '*limited legal tender*'. Standard money enjoys the privilege of being 'unlimited legal tender'. Our rupee coins, rupee notes and eight-anna pieces are legal tenders to an unlimited extent, whereas smaller coins can be paid to the limit of ten rupees only.

Our rupee is thus a mixture of the standard money and the token money. Like standard money it is unlimited legal tender and

like the token money its face value is greater than its intrinsic value. The device of making token coins limited legel tender is clearly useful, for otherwise the best way of making a man go mad would be to repay him a loan of, say, a lakh of rupees in the form of *naye paise*.

We might make here a distinction between currency and money. By the '*currency*' of a country is meant all those coins and notes which are legally recognised as money. On the other hand, anything that is generally acceptable as a medium of exchange or as a means of settling debts is money. To be money a thing must be generally acceptable ; to be currency it must also be recognised by law. Thus those cheques in India which pass freely from hand to hand but are not recognised by law are money though they are not the currency of the country. Rupee coins and notes and subsidiary coins form the Indian currency.

10. **Paper Money.** In modern times, metallic money is supplemented, or replaced, by paper money. The use of paper money has many advantages. It economizes the use of precious metals. It is convenient to carry and easy to store. Its value can be kept steady by properly controlling its issue. It is of great fiscal advantage to the government. A government can tide over a period of difficulty by the issue of paper money. Hence it has largely replaced coins.

In early times, when notes were introduced, they were backed by an exactly equal amount in gold or silver kept in reserve by the issuing authority. Such notes could be exchanged for coins when needed and did nothing more than represent coins. They were called *representative paper money*. American gold certificates (Greenbacks) were of this type. This practice was very expensive and is no more current now.

Paper money is not wholly backed by specie now. Only proportional reserves are maintained and a good deal of the paper money rests on people's confidence in the word of the issuing authority, be it the Government or the Central Bank of the country. Such a currency is called *fiduciary issue* (*i.e.*, depending on trust or confidence). The total value of notes in circulation in India at the end of March 1959 was Rs. 1,701 crores nearly. This amount was backed by nearly Rs. 118 crores worth of gold, helped by securities of the Government of India, England and U.S.A. Thus currency is of a fiduciary issue.

Paper money can be convertible or inconvertible. If the issuing authority promises to convert notes into standard money on demand it is called '*convertible paper money*'. But sometimes after an over-issue of paper money in an emergency like war, the authority feels unable to convert its notes into coins. Then it breaks its promise of converting notes into standard money and thereby makes the money '*inconvertible*' or fiat money (money by order). When the link with metal is broken, there is a tendency to over-issue paper money. Its value then depreciates. Prices shoot up which results in suffering for the people with fixed incomes.

Indian notes are convertible into the standard money of the country—rupees—as and when desired by holders. But it should be clearly noted that the rupee coins in India are themselves only token

coins. The Indian rupee has been called a note printed on silver. One-rupee notes are convertible into rupee coins—they are treated as rupees. They are issued by the Government while other notes are issued by the Reserve Bank.

11. **Over-issue of Paper Currency.** The greatest drawback in paper currency is the case with which it can be issued. There is always a danger of its over-issue when the Government is in financial difficulties. The temptation is too great to be resisted. Once this course is adopted, however, it gathers momentum and leads to further note-printing, and this goes on till the paper currency loses all value. This happened in various countries in recent times : in Russia (1917), in Germany (1919), in China (1944), and so on.

An over-issue of notes, in other words 'inflation', brings many evils in its train. Some of them are :

(1) Prices rise heavily. As a result, people with fixed incomes and labourers suffer greatly. The whole public feel the pinch.

(2) The indirect result of the rise in prices is a fall in exports and a rise in imports. This leads to export of gold from the country which is not a desirable thing. The balance of payments becomes unfavourable.

(3) The rise in prices also leads to a fall in the external value of the home currency. The rate of exchange falls. The more home money will have to be paid to buy units of foreign currencies.

12. **Gresham's Law.** This law is attributed to Sir Thomas Gresham, Queen Elizabeth's financial adviser, although it has been put forward before his time also. This law says that *where good money and bad money circulate together as legal tender, bad money tends to drive out the good money.* 'Bad money' denotes (*i*) old, worn out and bad coins against full-weight new ones ; (*ii*) depreciated paper money against metallic money ; and (*iii*) cheaper metal coins out of the two, if currency consists of coins of two metals. It is human nature that a man should try to pay for his purchases in lighter coins and keep back the better ones. Don't you part with a dirty note and keep the new one when making payments ? Thus the good money that a man keeps back goes out of circulation.

The 'good' money disappears from circulation in three ways :

(*a*) It is melted and used as metal which commands greater value in the market.

(*b*) It is hoarded because heavier coins serve as a better store of value.

(*c*) It is exported because foreigner accepts coins as metal. For this purpose heavier the coin the better it is.

Exceptions : The law, however, does not operate: (*i*) if the bad money is so bad that people refuse to accept it, or (*ii*) if the total quantity of good and bad money in circulation is barely sufficient for the needs of exchange, or (*iii*) if bad money ceases to be legal tender under government order.

13. **Monetary Standards.** With the introduction of paper-money, the question of 'standard' has come to attract attention.

'Standard' refers to the *metal (or otherwise) in terms of which the value of a currency is fixed.* There are many forms which a standard may take. It may be monometallism (*i.e.*, single metal standard) and take the form of a gold standard or silver standard or it may be bimetallisn (*i.e.*, double standard using two metals). The following are the main types :—

Silver Standard. China and Mexico used silver. Their monetary unit was in the form of the silver dollar, which was freely coined and was full legal tender. There was also a free market in silver in these countries. Hence we can say that they were on the silver standard. India too was on the silver standard up to 1893. The rupee was freely coined and its weight was 180 grains 11/12 fine. Anyone could get his silver coined into rupees at the mint or melt his rupees to obtain silver if he needed it.

Gold standard has different varieties of which the following may be noted : *Gold Currency Standard.* A country is said to be on a gold currency standard when (*a*) it has full-bodied gold coins in circulation, (*b*) it maintains free coinage, (*c*) it does not restrict the inflow or outflow of gold, and (*d*) it converts notes into gold coins whenever called upon to do so. Until World War I broke out, the U.K. and the U.S.A. and many other countries were on such a gold standard.

The monetary unit of each of these countries bore a fixed relation to gold and, therefore, to each other. This 'gold link' benefited international trade a good deal. England, followed by many other countries, 'went off the gold standard' when she disconnected her currency from gold during World War I.

Gold Bullion Standard. If, instead of gold coins circulating in the country, the arrangement is that the actual money can be converted into gold bullion (and not gold coins) *at a fixed rate*, we call it a gold bullion standard. England had this standard from 1925 to 1931. Gold did not circulate in the form of coin. But the Bank of England was prepared to buy any amount of gold at the rate of £3-17-9 per oz. £11/12 fine or sell it at £3-17-10½ but the minimum limit was 400 ozs. of gold. There were no restrictions on free exports or imports of gold into the country.

The Gold Bullion Standard was adopted in India too in 1927. In 1931 due to the Great Depression, England was unable to maintain his standard and had to abandon it. India, too, followed England and gave it up in the same year. Nobody advocates it now. Several advantages were claimed for this standard. It was economical since gold coins were not to circulate. It was also supposed to provide for automatic expansion and contraction of currency. In short, it was said to have all the advantages of real gold standard without its disadvantages. Really, however, it was no gold standard because the minimum limit of 400 ozs. of gold was too high to be of any practical use to the ordinary people. They had actually to be content with paper currency. Besides, the buying and selling rates of gold were so fixed as to turn the people away from the currency authority and to the bullion market.

Gold Exchange Standard. When gold does not circulate in a country but the currency can be changed into gold for foreign payments, it is a gold exchange standard. The Indian rupee was convertible into the pound sterling and the latter was convertible into gold but the rupee was not directly convertible into gold. To maintain this standard it was necessary to keep two reserves. One in India in silver and the other in England in gold. Gold in England was converted into rupees in India, and *vice versa.* The system broke down during the 1914-18 War due to the great rise in the price of silver and consequent increase in demand for rupees. After the war the system was tried again in 1922 but again it broke down and was given up for good.

Sterling Exchange Standard. From 1931 to September 1947, the Indian rupee was linked to sterling which had no relation to gold. We could pay our debts to other countries only through sterling which we could buy at the fixed rate of 1*s.* 6*d.* to a rupee.

Gold Parity Standard. After the establishment of the International Monetary Fund, on March 1, 1947, of which India became a member, the Indian Monetary System may be called the *Fund System* or the *Gold Parity Standard.* The value of the rupee has been now fixed at 0·186621 grammes of gold. The Reserve Bank is under an obligation to maintain the rate of exchange in terms of gold. The rate of the rupee to pound is still the same but the rupee has no 'sterling link' now. We can now directly deal in other currencies.

14. **Bimetallism.** So far we have been discussing currency standards based on a single metal, gold or silver. But we can use both and have bimetallism. Bimetallism involves the circulation in a country of both gold and silver at a fixed ratio, both being unlimited legal tender, and both subject to free coinage. People can discharge their obligation in terms of either of the two metals as the ratio between them is mentioned by the currency authority. France was under a bimetallic standard from 1803 for about three quarters of a century when she was compelled to give it up due to the market value of gold falling relatively to that of silver and the consequent operation of Gresham's Law. Efforts were made to reintroduce bimetallism in the last quarter of the 19th century but without success. Now there are few advocates of bimetallism. Bimetallism cannot function unless it is adopted by most of the nations. Actually, owing to the operation of Gresham's Law, there is either gold or silver in circulation but seldom both. Monometallism is now the rule. Monometallism means the circulation of coins of one metal only, gold or silver.

15. **A Sound Currency System.** We are now in a position to offer remarks as to which currency system, out of those discussed above, is the best. One may easily say, copying Alexander Pope : "About forms let fools contest. That which is administered best, is the best." There is no doubt that almost every system has been in operation in one country or the other at different times and with varying success. A good *system*, however, *has usually the following characteristics* :—

1. It must be simple so that people can easily understand it. The currency has to be used by all the people. If it is complicated, the people will not understand it and will not be able to work it well.

2. *It must help to keep prices reasonably stable*, thus toning down extreme fluctuations in the purchasing power of the currency. Rapid price changes are harmful to trade, industry and the people at large.

3. *It must also maintain the external value of the currency* of the country. If the ratio of the rupee with the foreign currencies is maintained on a steady level, India's foreign trade would flourish. Economists have come to hold now that the stability of internal prices is to be preferred to the stability of foreign exchange ratio.

4. *It must be a cheap system.* The gold standard is a very costly system. That is the reason why it had to be given up. A paper currency system supported by a type of standard money and money of account, in which the people of the country have full confidence, is an ideal system.

5. *The system should be automatically elastic* so that the currency should expand when needed and contract when the need is over. Only an elastic currency can best answer the needs of trade and industry. When trade expands, the currency must expand, and *vice versa.*

6. *Finally, the currency system must inspire confidence.* If the people have no faith in it, they will not accept it. The Indian currency system as a whole has the confidence of the people of India. It is economical and reasonably steady internally and internationally. It is also elastic. We can then safely assert that it is a good monetary system.

16. **Indian Currency System.** The Indian money largely consists of paper currency. Currency notes are issued by the Reserve Bank of India. They are of the value of Rs. 10,000, Rs. 5,000 ; Rs. 1,000, Rs. 100, Rs. 10, Rs. 5, and Rs. 2 (one rupee note is issued by the Government of India). Besides these, there are rupee coins, The rupee coin is a token coin made mostly of nickel whose real value is not more than 3 annas. The 8-anna piece is half of a rupee, made of nickel like it, and also unlimited legal tender like the rupee. Besides these, there are subsidiary coins, 4-anna piece, anna and pice. They are limited legal tender.

On April 1, 1957, the *Decimal System* of coinage was introduced in India. The rupee now is divided into 100 *Naye Paise* (nP.). Coins of the denominations of 50 nP., 25 nP., 10 nP., 5 nP., 2 nP. and 1 nP. have been put into circulation. The Reserve Bank of India maintains against the notes in circulation, gold and silver and securities of the Government of India and of some other foreign Governments. A change was made in October 1957 from a proportional reserve system to a fixed minimum reserve according to which the paper currency reserve was drastically cut down to Rs. 200 crores including Rs. 115 crores worth of gold.

Since the partition of India, the Indian rupee is no longer linked with pound sterling. It is now directly linked with foreign

currencies through the International Monetary Fund and the ratio can be changed as and when needed with the approval of the Fund.[1]

WHAT WE GATHER FROM THIS CHAPTER

In old times, goods were exchanged for goods. This was *barter*. Nowadays money has become indispensable.

Inconveniences of Barter :

(*i*) There has to be double coincidence of wants.

(*ii*) There is no means of measuring value for lack of a common measure.

(*iii*) Units of sale and purchase cannot be adjusted to each other for lack of sub-division.

(*iv*) There is no store of value either.

Therefore, some article of universal demand was selected in every society to serve as money. Gradually gold and silver came to be adopted everywhere as money. It is "a commodity chosen by common consent to serve as a means of exchange and for full discharge of obligations.' —(*Silverman*). It is the work, not the form of money which matters.

Characteristics of Good Money Material. In order to serve well as money the following qualities are needed :—

(*a*) Genral acceptability.

(*b*) Portability.

(*c*) Durability.

(*d*) Divisibility.

(*e*) Homogeneity.

(*f*) Malleability.

(*g*) Cognizability.

(*h*) Stability of value.

Functions of Money. Money has four functions

(*a*) General medium of exchange,

(*b*) a measure of value,

(*c*) a store of value, and

(*d*) a standard of deferred payments.

Advantages of Money :

(*i*) It removes all inconveniences of barter.

(*ii*) Pivot of all economic life.

(*iii*) Determines our command over goods.

(*iv*) Makes large-scale production possible.

(*v*) Trade and transport depend on it.

(*vi*) It is beneficial to the consumer, the producer and to the society in general.

Disadvantages :

(*i*) Ruinous speculation.

(*ii*) Heavy fluctuations in prices.

(*iii*) Trade cycles.

Forms of Money. Paper money, Standard money, Metallic money , coins, Money of Account, Representative money, Credit money.

A coin has some alloy mixed with fine or pure metal. Usually coins are milled to be proof against clipping. Coinage is everywhere controlled by governments. If the public can get metal coined freely, it is *'free coinage'*. If no charge is made for this, the system is *'gratuitous'*. The charge, if equal to the cost, is known as *'mintage'* or *'brassage'*. If the charge is more than the cost, it is called *'seigniorage'*.

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1. For further details *see* our *Introductory Economics*, Part II, Chapter on Currency.

Standard Coin. It is unlimited legal tender, subject to free coinage and has its face value to metallic or intrinsic value.

Token Coins. When the face value of a coin is more than its real worth, it is called a *'token coin'*; it is limited legal tender and is not subject to free coinage.

Legal Tender. Money backed by law is legal tender, as our rupee is. Smaller coins like *naye paise* can be legally offered only up to a limited extent and are 'limited' (as against unlimited) legal tender Currency means media recognized by law; while money means all media generally accepted by the people.

Paper money is convenient, cheap and elastic. In the beginning, paper notes represented an equal amount of metal kept in reserve. But now a large amount is issued in excess of reserve. This is called 'Fiduciary' issue. As long as the Government guarantees the conversion of paper notes into coins, paper money is *'convertible'*. If and when the Government withdraws this guarantee paper money becomes *'incovertible'*.

Over-issue of Paper Currency. Tho greatest drawback of paper currency is the ease with which it can be issued, and in times of financial difficulties it usually results in "inflation", and it may mean ruin of the country's economy.

Gresham's Law. If two kinds of money, good and bad, circulate together, good money tends to be driven out. 'Bad money' means old coins against new ones and nickel and silver against gold. Good money is then hoarded, melted or exported.

Monetary Standard means the metal (or money in terms of which the value of country's money is fixed). It is a *Gold Standard* if money is fixed as equal to so much gold and gold coins are in circulation; it is *Silver Standard* when silver coins circulate as monetary units; *Gold Bullion Standard* when money is kept equal to a fixed amount of gold metal not gold coins; *Gold Exchange Standard* when a currency is related to and can be changed into gold for foreign payments; *Sterling Exchange Standard* when it is linked to Sterling. *Gold Parity Standard* indicates a link with gold as declared to the I.M.F.

Bimetallism. When two metals, gold and silver, circulate at a ratio fixed to each other. *Monometallism*—when only one metal circulates as standard money.

A Sound Currency System. A good currency system possesses the following characteristics :—

(1) It must be simple. (2) It must keep the prices stable. (3) It must maintain the external value of currency. (4) It must be a cheap system. (5) The system should be elastic automatically. (6) It must inspire confidence.

CAN YOU ANSWER THESE QUESTIONS ?

1. What is Barter ? Explain how the use of money originated in the inconvenience of barter. *(Ajmer 1953 ; Bombay 1953 ; Rajasthan H.S. 1960)*

[See Secs. 2 and 3.]

Or

What are the inconveniences of barter in an 'exchange economy' ? In what way does money overcome these ? *(J. & K. 1956)*

Or

What is Barter ? What are its difficulties ? Under what conditions can it work ? [See Secs. 2 and 3.] *(Rajasthan Inter 1960 ; Utkal Inter Arts 1960)*

2. What difficulties are we likely to experience if all money suddenly vanishes ? Is the use of money always beneficial ? *(Pb. Univ. H.S. 1962 Suppl.)*

[See Sec. 2.]

Or

What difficulties would you feel if there were no money ?

[See Sec. 2.] *(Utkal Inter Arts 1958 ; Bihar 1953 ; P.U. 1943 Suppl.)*

3. Why was barter replaced by exchange through money ? *(Ajmer Board 1958)*

[See Secs. 2 and 3]

4. What are the qualities of a good money material ? Are the following suitable as materials for the making of money ?

(*a*) *Ice.*

(*b*) *A piece of paper.*

(*c*) *Radium*

(Delhi 1955)

[See Sec. 4.]

5. Define Money. Why did gold and silver become universally adopted as money ? *(P.U. 1937)* [See Secs. 3 and 4.]

6. Define Bank Money. How does it differ from other kinds of money ? *(Delhi H.S. 1958)*

Or

What is meant by Bank Money ? Is a ten-rupee note bank money ? In what respects does it differ from a cheque ? *(Utkal Inter Arts 1958 ; Delhi Prep. 1962)*

[See Sec. 3. Bank money refers to cheques of bank balances. As compared with other forms of money, it is more elastic and more convenient. But it has no backing of the State.]

7. What are different kinds of money that are used in a modern economy ? Discuss the importance of bank money ? *(Delhi Pre. Univ. 1961)*

8. What do you understand by money ? Briefly explain its main functions ? *(P. U. Pre. Univ. 1962)*

[See Secs. 3 and 5.]

9. "Money is what money does". Discuss. *(Delhi H.S. 1960)*

[See Secs. 3 and 5.]

10. Write notes on—

(*i*) *Gold Standard.*

(*ii*) *Mintage.* *(P.U. 1946 Suppl. ; P.U. 1941)*

(*iii*) *Free coinage.*

[(*i*) See Sec. 13. For (*ii*) *and* (*iii*) See Sec. 8.]

11. Define :—(i) Currency, (ii) Coinage, (iii) Seigniorage, (iv) Standard Money, (v) Bimetallism, (vi) Gold Exchange Standard. *(P.U. 1946 Suppl.)*

[*For* (*i*), (*ii*), (*iii*) *and* (*iv*) See Sec. 8, for (*v*) See Sec. 14 *and for* (*vi*) Sec. 13.]

12. Distinguish between—

(*i*) *Money and Currency.*

(*ii*) *Legal tender and token money.*

(*iii*) *Free coinage and gratuitous coinage.*

(*iv*) *Gratuitous coinage and mintage.*

(*v*) *Mintage and seigniorage.*

(*vi*) *Debasement and depreciation of currency.*

(*vii*) *Money and Wealth.*

(*viii*) *Inconvertible and convertible money.*

(*ix*) *Credit and Metallic money.*

[(*i*) See Sections 8 and 9. (*ii*) Debasement is the lowering of the quality of metallic coins. It may be due to long use, or intentional ; dishonest people try to make an income in this way. Depreciation is the lowering of the purchasing power of money. For depreciation see next chapter. (*iii*) See Ch. III Sec. 11. (*iv*) Money may be currency money or credit money. Currency is that which is *current legal tender—notes and coins.* See Sec. 9. (*v*) Sec Sec. 10. (*vi*) See Secs. 7 and 8.]

13. Which of the following are money in India ?

(1) Notes of the Reserve Bank. (2) Cheques drawn on State Bank of India. (3) Postal Cash Certificates. (4) The English Sovereign. Give reasons for your answer. *(C.U.B. Com. 1943 ; P.U. 1939 ; J. & K. 1953)*

[(1) Yes (2) No. (3) They represent money. (4) No.]

14. Explain "Gresham's Law" fully. Also give its limitations.
[Sec Sec. 12.]
(Ajmer 1953 ; P.U. 1949 ; C.U. 1943 ; Agra 1942 ; Nagpur 1941)

Or

Write a brief explanatory note on Gresham's Law. *(J. & K. 1958)*

15. What are the essential characteristics of the gold standard ? Define it.
[See Sec. 13.] *(Cal. 1928 ; Cal. B. Com. 1946)*

16. Explain the advantages of a Gold Standard. Why has this standard been given up in India and England ? *(Saugor 1952)*

[Advantages of a Gold Standard are :—

(*i*) It makes for prestige. (*ii*) It inspires confidence. (*iii*) It helps in maintaining the value of currency over long periods. (*iv*) It is not at the mercy of the currency authority. (*v*) It helps in maintaining the rate of exchange. (*vi*) It helps in adjusting the balance of payments automatically.

India, England and most of the countries have given up the Gold Standard since it is costly and unnecessary. The world has learnt to do without a costly medium of exchange. Paper money is very economical and can be efficiently managed.

17. Discuss the advantages and disadvantages of paper money. In what respects is paper money superior to metallic money ? [Seo Secs. 10 and 11.]
(Bihar 1956)

Or

What are the advantages and disadvantages of the use of paper money ? Discuss the danger of over-issue ?

[See Secs. 10 and 11.] *(Utkal Inter Arts 1959 Suppl. ; U.P. Board 1958)*

18. What are the dangers involved in a paper currency system ? How can a Government avoid them ? [See Sec. 11.]

19. Briefly describe the main requisites of a sound currency system. Is Indian currency system also based on such principles ? [See Sec. 15.]

20. Write a short note on the Decimal System of coinage in India.
[See Sec. 16.]

CHAPTER XXV

THE VALUE OF MONEY

Measuring the Money

Meaning of the Term "Value of Money." "The yard measures distance", said the teacher. "But what measures the yard ?" was the question. "Well", came the reply, "distance itself". Similarly money measures "goods". But what measures money ? "Goods" is the reply. Value, as we know, is the ratio of exchange between two goods, and money measures that value through price. Money is an object of desire. Efforts are made to obtain it not for its own sake but for the goods it can purchase. *The value of money, then, is the quantity of goods in general that will be exchanged for one unit of money. The value of money is its purchasing power, i.e., the quantity of goods and services it can purchase.*

What money can buy depends on the level of prices. When the price level rises, a unit of money can purchase less goods than before. *Money is then said to have depreciated.* Conversely, a fall in prices signifies that a unit of money 'can buy more than before'. *Money is then said to appreciate.* The "general level of price" and the value of money are thus the same thing from two opposite angles. When the prices rise, the value of money falls, and *vice versa.* In other words, the value of money and the general price level are inversely proportionate to each other. Violent changes in the value of money disturb economic life and do great harms. We must, therefore, carefully study the factors which determine the value of money.

2. **Inflation, Deflation and Reflation.** Let us make ourselves familiar with certain terms which have come to be used in connection with the changes in the value of money. Suppose we have found by measurement that a room is twenty feet long. Measuring it again next day we are surprised to see that the same room is twenty-four feet in length. How could the room stretch itself by 4 feet overnight ? Was some partition knocked out or an extension added during the night ? Or is it that our foot measure has grown shorter by two inches ? Which out of these is the correct answer ? In the same way, if a rupee can buy 10 seers of wheat today but purchases only 5 seers tomorrow, we are greatly perplexed. We feel disgusted with our foot-measure, the rupee, which has shrunk to half its length. We want to know what has happened. We are told "the value of money has changed." Exactly this is what has happened in India. There are many times more rupee notes circulating in the country now than previously while the number of goods is practically the same as before—or may be a little more but only slightly. Hence a rupee buys less.

The rupee has shrunk to about one-fourth of its pre-war (1939) value. Many more notes—to be precise, Rs. 1,701 crores—are (at the end of 1959) in circulation in the country as compared with Rs. 172 crores on 1st September, 1939. Thus there is currency *inflation* in the country. It is a case of too many rupees chasing too few goods. That is why the prices have gone up.

Feeling nervous at the heavy rise in prices, the Government of India has been trying to reduce the notes in circulation in different ways. Contraction in currency, which causes a steep fall in prices, is known as *'deflation.'*

Suppose the pendulum swings too much the other way, and there is so much reduction in currency that business comes to a standstill. The Government will then try to expand currency with a view to restoring business and checking the evil result of deflation. Such a process would be called *'reflation'*.

3. **Measurement of Changes in the Value of Money.** Changes in prices are not uniform. Some prices rise, others fall; while still others remain stationary. They are like bees dashing out of a hive higgledy-piggledy, some buzzing off this way, some that way ; while others keep hovering at the spot. But there may be a trend in a particular direction. A comparison of price changes would give a very confusing picture. We have to discover the extent of the over-all changes in the value of money before suggesting a remedy. The seriousness of the disease must be known before a cure can be effected.

Index Number. The device of index numbers comes to our aid. It helps us to compress the changes in the prices of any number of articles and express them as ratio for two different years. It enables us to discover the change in the value of money. Index numbers can as well be constructed to find out the change in the cost of living of a particular class of society. They can also serve to measure changes in the quantity or value of imported or exported goods, volume of industrial production, variation in wages, company floatation, etc. As a matter of fact, they are used for measuring any quantitative change. For measuring changes in the value of money, we prepare index numbers. It is done as under :—

First of all, the base year has to be selected. A normal year is desirable so that the change should be clearly indicated by index numbers. For instance, to measure the changing value of the rupee to-day the pre-war year, 1938-39, would be a suitable base year. Also, in order to study the results of the Five-Year Plans, 1950-51 might be taken as the base year.

The *second step* is to draw up a *list of commodities.* It should be as big and representative a list as possible. The list will also depend on the purpose for which index number is prepared. For instance, if it is desired to find changes in the cost of living of clerks, the commodities usually consumed by them will have to be taken.

Thirdly, we shall put down the prices. *Wholesale prices* should be taken to measure the changes in the value of money and *retail prices* to measure changes in the cost of living. Since retail prices

vary from shop to shop and there is no proper record of them, wholesale prices have to be taken.

How to construct an ordinary Index Number. Put the price of each article in the base year equal to 100. Work out the percentage increase or decrease in the price of the same articles for the year of calculation. By adding up the figures in this column and in the one in which every price is put equal to 100 separately, we arrive at two figures. The percentage change is found out by multiplying the second figure by 100 and dividing the result by the first figure.

Let us illustrate the above method with a practical example. They are five columns in the table below: *first* for articles, the *second* for prices, the *third* for the base 100, the *fourth* for prices in the year under review and finally the *fifth* for working out the change in percentage.

Articles	*Wholesale price in 1939 (our base year)*	*Every price is supposed to be 100*	*Prices during the year in question (1961)*	*Percentage change in 1960 over 1939*
Wheat ...	2/8- per md.	100	15/- per md.	600
Ghee ...	40/- per md.	100	220/- per md.	550
Milk ...	5/- per md.	100	20/- per md.	400
Cotton Cloth ...	-/8/- per yd.	100	1/8/- per yd.	300
Shoes ...	6/- per pair	100	15/- per pair	250
Paper ...	-/2/- per quire	100	-/8/- per quire	400
Cinema ...	-/8/- per show	100	-/8/- per show	250
Fuel ...	-/8/- per md.	100	1/4/- per md.	300
	Total	**800**		**3050**

Percentage average $\frac{3050 \times 100}{800} = 381$. This means that the index number shows a rise of prices from 100 to 381 or 281% during the period under review.

The Economic Adviser to the Government of India maintains a price index for wholesale prices of commodities divided into 5 groups—Food Articles, Industrial Raw Materials, Manufactured goods, Semi-manufactured goods and Miscellaneous articles. These give us quite a correct idea of changes in prices in India.

4. Uses and Limitations of the Index Numbers. Index numbers are very useful for comparing changes in the living conditions of people in different years as well as changes in the purchasing powers of different currencies in certain years. For example, we can compare the fall in the value of the Indian rupee with the fall in the value of the pound or the dollar during the last war Index numbers thus helps us to frame our economic policies. They also provide us with a basis for a fair discharge of debts. Sliding scales in wages and land rents are also based on price index numbers. Suffering resulting from variations in the value of money can be lessened to some extent. As already mentioned, the index numbers are nowadays used for measuring all sorts of economic changes, *e.g.*, variations in wages, profits, company floatation, agricultural production, industrial production and what not.

Index numbers, however, suffer from certain limitations. They cannot be considered absolutely correct. They are just approximations. Comparisons are impossible on account of difference in the data on which they are based. The same index cannot show effects of price changes on all sections of the people, because they can measure changes in sectional price levels only. One set of weights may yield different results from another. Comparison between different places and different periods is rendered difficult.

5. **Effect of Changes in the Value of Money.** Money cannot do its work efficiently if it changes in value every now and then. How risky would the cloth business be if the length of the yardstick fluctuated while the quantity of cloth remained the same.

Changes in value of money have got far-reaching effects both on the store of wealth and on the wealth-producing capacity of the economy.

These changes arbitrarily re-arrange the purchasing power in the hands of the people who hold it. For example, the rupee to-day purchases in India nearly four annas worth of goods as compared with 1939. This change in the value of the rupee has benefited debtors at the cost of creditors. A man who borrowed Rs. 100 in 1938—when this sum could purchase 20 maunds of wheat—is paying much less when he returns Rs. 150 including interest to-day when this sum can buy no more than 10 maunds of wheat.

Usually *rising prices* create a feeling of hopefulness in the early stages and all businessmen feel happy and buoyant. Manufacturers gain much as the costs of goods they make do not go up as quickly as the price they get for those goods. Big agriculturists, who have a great deal of grain to sell, prosper. Even small ones gain, as rents and other charges remain the same, while their produce fetches much more in the market.

But rising prices hit people with fixed incomes, *e.g.*, government servants and rent receivers. A clerk getting Rs. 100 as pay plus Rs. 55 dearness allowance is getting only Rs. 30 in pre-war terms. Labourers are hard up as their wages lag behind prices and do not go up in the same proportion. Strikes and lock-outs disturb production and bring about unemployment. Labourers are thus put to further loss but the worst sufferers are people getting fixed salaries.

In the reverse direction, *falling prices* produce even more depressing and disastrous results. *A fluctuating money standard at one time checks and at another time over-stimulates the production of wealth.* Many a time it results in an unbalanced growth of industry and brings about booms or depression. Speculation prevails and efficiency in production suffers.

Fluctuating prices create a feeling of uncertainty about the future. Transactions in futures, sales or purchase cannot be made with confidence and the calm flow of economic life is disturbed.

Wealth-getting in times of inflation as in India, "degenerates into a gamble and a lottery."—(*Keynes*) It is thus clear that the distribution of wealth is altered unjustly.

Lenin said that "the best way to destroy the capitalist system was to debauch the currency", *i.e.*, to create conditions of inflation. But for this danger of inflation, inconvertible paper money would be very useful. And the danger is all the greater because to print notes is so cheap and easy. In those countries[1] in which (during the war of 1914-18) rising prices went very high, every private house looked like a store choked with articles of every sort including, in one case, a coffin purchased against his death by a peasant ! No less interesting is the famous story of two brothers in Austria who inherited equal sums of money. One of them, like a good boy, deposited his share in a bank. The other, a happy-go-lucky sort of chap, spent all he got on wine and entertainment. After a year or so, the latter got more money by selling the heap of empty bottles lying in his cellar than hisbr other got back from the bank ![2] That is why, during such times, people do not want to keep their savings in the form of money in spite of slogans like "Save all you can" and hoard goods.

6. **Why Value of Money Changes ?** Let us now enquire into the forces that determine the value of money and the general price level. The general price level in a community is influenced by the following factors :—

(*a*) the volume of trade,

(*b*) the quantity of currency,

(*c*) the volume of credit, and

(*d*) the velocity (or rapidity) or circulation of currency.

These four factors change independently as well as in relation to each other.

Money is used in exchanging goods. The greater the volume of exchanges required to be made, the greater is the demand for money and hence the greater will be the value of one unit of money, and *vice versa*. Thus the *value of money varies directly with the volume of trade*.

It is well-known that the value of anything depends on its supply. The more the wheat in a season the less its price. In the same way, the greater the number of rupees to do a given amount of money work, the less is the value of a rupee, and *vice versa*. In other words, the *value of a unit of money varies inversely with its quantity*. But we have learnt that all the money-work is not performed by cash money. A good deal of it is also done by credit money. Hence credit instruments should also be taken into consideration when we are trying to discover the local quantity of money which will influence prices in a country.

Remember, however, that money is not finished up in one use. A unit of money is ready to perform another exchange after it has served in making one. It passes from hand to hand. Thus if a single rupee is used six times in a certain period it does the work of six rupees if they serve only once each in the same period. Hence the number of times a rupee changes hands in say, a year, is

1. Like Germany and Austria where the currency had lost all its value.
2. Hartley Withers : *Money*.

known as its "velocity of circulation". Thus the velocity of circulation of money helps the total quantity of money in determining prices.

7. Quantity Theory of Money. The above conclusions have been put in the form of theory called the Quantity Theory of Money. This was the best known theory of money throughout the nineteenth century and even up to the twenties of the present century. It declares that the value of money depends upon its quantity in circulation. In its most rigid form, this theory asserts that "any given percentage increase or decrease in the quantity of money will lead to the *same* percentage of increase or decrease in the general level of prices."—(*Benham*).

In order to make it applicable to a modern community the theory may be stated thus : The value of money falls (and the price level rises) proportionately with a given increase in the quantity of money. Conversely the value of money rises (and the price level falls) proportionately with a given decrease in the quantity of money, *other things remaining the same.* These other things are : (1) Velocity of circulation of money ; (2) the volume of credit ; (3) barter ; and (4) volume of trade.

Money, we know, is only a medium of exchange. It is only a counter or a ticket serving as a link in exchange and is not wanted for its own sake. Therefore, the quantity theory concludes that if a community had twice as mueh money, all prices would be twice as high and if it has half as much money, all prices would be half as high. The total purchasing power of all money would always be the same because "money is only important for what it will procure". (*Keynes*).

An illustration will make it clear. If in an island, one hundred articles of equal value are available for the sale and there are two hundred units of money, the average price would be two units of money per article. If, one fine morning, every one woke up to find that the money with him had doubled itself, the average price would be four units per article. And if the money possessed by everybody were halved, no one would be the poorer for it because every coin would begin to purchase twice and much as before. In other words, the *elasticity of demand for money in that island is unity.*

We have discussed at length how the value of any commodity is settled. The words "demand" and "supply" which would, as is humorously said, "make an economist of a parrot', hold the key. Well, the value of money is settled in no other way. The demand for money depends upon the number of transactions, *i.e.*, the volume of trade, extent of credit and barter. The supply of money depends on its quantity multiplied by the velocity of its circulation. Extending the general theory of value to money, we can say that if the quantity of money in circulation were increased with no change in the number of goods, its value would fall and prices rise, and *vice-versa*. Similarly, an increase in the amount of goods without a change in the quantity of money will tend to raise the value of money and lower prices. It should be noted, however, that a change

in the supply of goods does not cause a *proportionate* change in their value. But the change in the value of money is proportionate to change in its quantity.

Irving Fisher, who developed the theory, puts it in the form of an algebraic equation of exchange, $P=\frac{M}{T}$, where P is price level, M is money and T stands for trade or goods exchanged. This simple equation can be true only of a small isolated community—(*a*) where the number of transactions is small, (*b*) where there are no barter transactions, (*c*) where, except coins, there are no other types of money like notes and cheques in use, and (*d*) where every piece of money changes hands but once. Such isolated communities are not found nowadays, however.

We observe that in modern communities a coin changes hands a number of times. The butcher takes it to the baker and the baker to the grocer and he again to some other person. The work done by a coin which circulated five times is equal to that done by five coins which change hands only once each. This speed is called the *velocity of circulation*. Hence to find out the effective amount of money in a country, we have to multiply the total number of coins by their velocity. Our equation would then be $P=\frac{MV}{P}$, where V= velocity of circulation of money.

But in addition to metallic money in every modern country, there is a large amount of paper money which helps in the exchange of goods. Instruments of credit like cheques, drafts and bills also serve the same purpose. Their velocity of circulation has also to be taken into consideration. So our equation finally develops into $P=\frac{MV+M'V'}{T}$ where M′ stands for credit money and V′ for its rapidity or velocity of circulation.

The equation signifies that the price level (P) changes when the quantity of money (M) or quantity of credit money (M′) changes or when their velocities (V & V′) change. Of course P will also change if the quantity of goods (T), required to be exchanged, changes.

Criticism of the Quantity Theory. This theory has been subjected to a great deal of criticism. In fact modern economists do not accept it without reservations. (1) So long as the quantity theory describes a tendency, it is all right. But when it proceeds to lay down an inflexible mathematical formula it falls to the ground. Only under very special circumstances will a doubling of the amount of money exactly double the price level. The price level may go up to more or fall down to less than that.

(2) A change in M (money) in reality is almost certain to cause a change in V (velocity of circulation) and T (number of transactions). A change in P (price level) also has its effects on both V and T. There is bound to be action and reaction. Therefore the assumption, that changes in M, V and T *alone* produce changes in P and not on each

other, does not hold good. If that had not been so "we could have safely predicted price changes and this would have served as a guide to official control of price level."

(3) Further, the price level does not depend on the quantity of money in circulation as such. It is influenced by income which the consumers spend in the market. In the Great Depression (1929-33), the U.S.A. created huge quantities of money to step up prices. No. doubt the incomes of the people increased, but they did not spend more. That is why prices would not rise.

Conclusion. The theory is not mathematically true but examples from history prove that whenever money has been greatly increased in any country prices have gone up, *e.g.*, in Germany after the war of 1914-18, in India during the Second World War and after, and so on.

Undoubtedly, the theory points out the danger of over-issue of notes in any country. Therein lies its main value.

8. **Modern Theory—Income Theory.** According to modern view, especially the Keynesian view, it is admitted that the changes in money supply bring about changes in the price level. But it is not admitted that there is any simple, direct and predictable relationship between the quantity of money and prices. It is now emphasised that the value of money or the price level is in fact a consequence of the total incomes rather than of the quantity of money. The real cause of the changes in the value of money is to be found in the changes in the level of aggregate income or expenditure. Hence changes in the quantity of money can bring about changes in the level of prices only if they change in the aggregate spending in relation to the supply of goods. As it has been mentioned above, the quantity of money was increased during the Great Depression but the prices did not rise because the increased amount of money did not lead to increased spending. Businessmen had curtailed their investments. Unless spending increases, there can be no increase in demand for goods. Even if spending increases, prices may not rise if the supply of goods has increased at the same time.

Hence the effect of a change in the quantity of money on prices depends on (*a*) its effect on the level of aggregate demand and (*b*) relation between aggregate demand and the volume of production.

Thus in the modern theory, relationship between changes in money supply and prices is much more indirect and uncertain than was assumed by the quantity theory of money. It all depends on the effects on aggregate spending and the elasticity of supply of output.

WHAT WE GATHER FROM THIS CHAPTER

Value of Money is its purchasing power. It varies inversely with the price level. Thus goods and services measure the value of money. When prices are rising money is 'depreciating' and when they are falling, it is 'appreciating.' Violent and sudden changes upset economic life.

Inflation, Deflation and Reflation. The truth of the quantity theory is brought out when there is *inflation*—an over-expansion in currency, due to which money falls in value. The reduction of money in circulation is called

deflation. It increases its value. When currency is expanded again, it is called *reflation.*

How to Measure these Changes ? Changes in the value of money are measured through the device of '*index number*'. Thus we find the percentage change in the prices of many articles during a given period, and strike an average.

Precautions : Select (*a*) large number of commodities of everyday use ; (*b*) a normal base year or years ; (*c*) correct prices—wholesale or retail for the purpose in hand.

Through index numbers, comparisons can be made between changing values of different currencies, at different times and places. Index numbers are now used for measuring all sorts of economic changes.

Why Value of Money Changes ? Changes in the value of money are explained by changes in the volume of trade, the quantity of money (both metallic and credit) and the velocity of circulation of currency.

Quantity Theory of Money. Money is needed only as a claim to other goods. How much a unit of it will purchase depends on its amount. If the amount of money is doubled, a unit will command half of the goods it did before, and *vice versa.* This fact is expressed in the form of an equation by Prof. Fisher in his famous *Quantity Theory of Money.* Price level is equal to quantity of money divided by the number of transactions. The quantity of money must include credit money. Money as well as credit have to be multiplied by their velocity, *i.e.*, the number of times a coin or a note exchanges for goods.

The theory is not correct if it insists on the change in the value of money being *exactly proportional* to the change in its quantity. Otherwise, it brings out an important truth.

Fisher puts it in the shape of an equation $P = \frac{MV + M'V'}{T}$ where M is money, V its velocity, M′ credit and V′ its velocity.

Effects of Changes in the Value of Money. When money fluctuates in value it disturbs the economy. It arbitrarily re-arranges purchasing power in a society. It retards or over-stimulates the production of wealth and creates feeling of uncertainty. *Rising Prices* benefit debtors, businessmen, manufacturers, and agriculturists with a surplus to sell. They hit government servants, labourers, rent-receivers and other people with fixed incomes. *Falling prices* have just the opposite effect.

CAN YOU ANSWER THESE QUESTIONS ?

1. *What do you understand by 'value of money' ? How is the value of money determined ?* (*Delhi Prep. 1962*)

2. *Explain.* (*a*) *Appreciation of money.*
   (*b*) *Depreciation of money.*
   (*c*) *Inflation.*
   (*d*) *Deflation.*

3. *Money measures the values of goods. Explain. How can we measure the value of money?* [See Secs. 1 and 3.] (*P.U. 1953*)

4. *What are Index Numbers ? How is an index number constructed ? What precautions will you take in drawing the wholesale price index in India for the last 15 years ?* [See Sec. 3.] (*J. & K. 1956 ; P.U. 1958*)

5. *What are Index Numbers ? How are they prepared ? What are their uses ?* [See Secs. 3 and 4.] (*Pb. University H.S. 1961 Suppl.*)

6. *What do you understand by the value of money ? How can you measure changes in the value of money ?* (*Delhi H.S. 1962*)

7 *What are index numbers ? What are their uses and limitations ?* (*Bombay 1953 ; Agra 1941 ; All. 1940 ; Dacca 1943 ; Delhi 1940 ; Nag. 1946 ; Punjab 1933*) [See Secs. 3 and 4.]

8. *Examine the effect of price changes on different sections of the community.* [See Sec. 5.] (*P.U. 1955*)

9. Define inflation and indicate its effects.
[See Secs. 2 and 5.] *(C.U. 1956)*

10. Discuss the various economic consequences that follow from changes in the value of money ?
[See Sec. 5.] *(Cal. 1946 ; Dacca 1943 ; Cal. B. Com. 1941)*

11. Show the effect of falling prices on businessmen, school teachers and small shopkeepers.
[See Sec. 5. Businessmen lose much, small shopkeepers also lose a little. People with fixed incomes like teachers gain.]

12. How do you account for changes in the value of money ? Explain how changes in the purchasing power of money affect the different sections of the people of a country. [See Secs. 6 and 5.] *(J. & K. 1953)*

13. (a) What are Index Numbers ? Explain with the help of suitable illustrations how they can be prepared. *(Pb. University H.S. 1962 Suppl.)*
(b) Fill in the blanks by using one of the words in brackets.
The device of Index Number is used for measuring changes in the.....*(value of money, quantity of money)*.

14. Would profits be higher when the value of money is rising or when it is falling ?
[Falling. It is then that goods are rising in value. As producers deal in goods, they reap large profits.]

15. What do you understand by the value of money ? Explain the economic effects of the change in it. [See Secs. 1 and 5.] *(Bombay 1954)*

16. What do you understand by the phrase "value of money" ? Enumerate the factors which govern changes in the value of money.
[See Secs. 1. 6 and 7.] *(P.U. 1958 ; Delhi H.S. 1958)*

17. Give an idea of Fisher's quantity equation. *(Calcutta 1955)*

18. Explain and examine critically the Quantity Theory of Money. *(Pb. University H.S. 1962)*

Or

Under what conditions does the quantity theory of money not hold good ? Explain.

19. Explain the term 'value of money'. Why does the value of Indian rupee vary from time to time ? [See Secs. 1 and 6.] *(J. & K. 1958)*

20. Explain the relation between the quantity of money in circulation and general price-level in a country. How can we measure changes in the value of money ? [See Secs. 6, 7 and 3.] *(J. & K. 1955)*

21. Why has money any value at all ? State the circumstances in which the value of money would tend to fall. *(Delhi 1953)*
[Money has value because by law it is established as a medium of exchange and the Government regulates its quantity in such a way that it always commands value in terms of goods and services.
A fall in the value of money is indicated by a rise in the price level which is generally due to inflation.]

Or

Indicate the factors that determine the price level in the country. *(Calcutta 1944)*
[See Secs. 6 and 7.]

22. What are the chief functions of money ? Under what conditions does money cease to perform its functions properly. Did such a condition ever arise in India ? *(P.U. Inter 1961)*
[Money ceases to perform its proper function when people have lost all confidence in the Government that issues money in times of inflation. This happened in Germany in 1918. Such a situation has not arisen in India, though conditions grew very bad in 1944 when the Allies suffered defeats. Today the rupee is worth -/4/- nearly as compared with its pre-war value.]

23. What do you understand by the common remark "Our rupee today is hardly worth 25 nP. ?" What effects, social and economic, would you expect from steep and continued rise in prices, unattended by any serious controls ? Explain with particular reference to Indian experience in the post-war period ? *(P.U. 1960)*
[See Sec. 7.]

24. What do you understand by changes in the value of money ? What is the effect of rise in the value of money on (a) a big landlord, (b) a money-lender, (c) a college professor, (d) a government pensioner ? *(P.U. Pre-Univ. 1962)*

CHAPTER XXVI

CREDIT—ITS INSTRUMENTS

"Promise to Pay"

1. **Meaning of Credit.** In a primitive economy, people were self-sufficient. Mostly they consumed what they produced. But when this simple state of affairs prevailed, a person occasionally stood in need of an article, he borrowed it from a neighbour promising to return it later. This was the simplest form of credit. The loan took place because the lender had confidence in the borrower's *will and ability* to return it.

As time passed population increased. The number of sale and purchase transactions grew apace. Roundabout methods of production were adopted. It was found that coins were not enough to serve as media of exchange. Some subsidiary help had to be utilized. This was discovered in credit in its various forms.

Sometimes we find notices like "Terms cash" or "Please do not ask for credit" in shop counters. One might wonder as to why such notices have been placed there. Obviously because the owners of these shops have no confidence in their customers—at least in some of them. "Once bitten twice shy" must be true in their case. They would rather not sell, than sell on credit to persons whose honesty they cannot rely on and who could not be expected to honour their word.

The dictionary meaning of the word "credit" is "confidence felt in a person's ability, honesty or intention to pay." This confidence in a person, or the reputation it gives him, is of great importance in business. Ordinarily, exchange is complete when one person has received a good and the other its price. When purchases are small it is usually so. But when the purchases are so large that the buyer has not enough funds on hand to pay for them, a delayed payment of price would help him. If the seller has confidence in the buyer he allows him this privilege and "sells on credit." Thus a credit transaction is but "protracted exchange." It differs from a "cash transaction in the fact that it depends upon confidence and that there is an element of time in it." All hire-purchase systems (or instalment purchase) and all borrowing and lending involve credit.

In short, credit implies trust or belief in a borrower's ability or willingness to pay. It is an attribute of the borrower on account of which he inspires this trust or confidence in others. Three C's form the basis of this credit, *viz.*, character, capacity and capital. The borrower must be honest ; he should have the capacity to pay or use profitably the amount borrowed ; and he should be a man of

substance. Such a person will have good credit in the money market.

2. **Credit Instruments.** People talk a little regretfully of the good old days when everybody was honest and a man's word was as good as his written bond. They forget that now the area of dealings has increased greatly. Perhaps, man has become more selfish too, on account of the increase in the struggle for existence ; so almost always some record of transactions is kept in black and white. This record may take the form of *a promissory note, a bill of exchange, a cheque, a draft or a hundi.* Banks, in some countries like England, in the past used to issue notes without check from Government. These bank notes were of the nature of promissory notes. This led to over-issue of such notes without sufficient security and resulted in frequent bank failures. This practice was too dangerous to continue and the Government had to prohibit it. Hence to-day only the central bank of a country is allowed to issue notes. These notes are accepted by the people because of their faith in the stability of the Government and are almost as good as money. Therefore, for purposes of our study, we may exclude them from the list of instruments of credit, *i.e.*, documents that make possible credit transaction.

Let us study some credit instruments.

(*i*) *A Promissory Note.* The simplest form of a credit instrument is the promissory note. A promissory note (or pro-note for short) is a written promise from a buyer or a borrower to pay a certain sum of money to the creditor or his order. It is what we call IOU (I owe you), *i.e.*, an acknowledgement of debt and an obligation to repay.

A typical promissory note is as below :—

Promissory Note

Rs. 500 July 1, 1963

Two months after date, I promise to pay M/s. Singh and Co. or order, the sum of Five Hundred Rupees only for value received with interest at the rate of 5 per cent.

10 nP. Stamp

Shyam Lal
Per Pro M/s. S. Chand & Co.

The words "value received" indicate that the document is the result of some purchase or loan. Interest must be mentioned, otherwise the pro-note is not good in law. Such a document can be used for any kind of transaction, personal or commercial.

(*ii*) *A Bill of Exchange* is used in internal as well as foreign trade. It is an order by a seller to a buyer or by a creditor to a debtor to pay a certain sum of money to himself or to bearer or to another person named therein. The seller or the creditor who draws the bill is called the "*drawer*" ; the purchaser or the debtor on whom the bill is drawn is called the "*drawee.*" The seller may order the payment to be made to third person called "*payee*". Specimens of inland and foreign bills of exchange are given below :—

An Inland Bill of Exchange

Rs. 20,000/- Jullundur,
July 1, 1963.

Thirty days after date pay to M/s. Singh and Co., *or bearer* the sum of twenty thousand rupees, for value received.

For S. Chand & Co.
Shyam Lal
Proprietor.

M/s. The Premier Book Depot,
Chandni Chowk, Delhi.

In place of the payee's name any of these forms may be used :—

1. Pay to bearer,
2. Pay to J. D. Varma or order, or
3. Pay to my order.

When the bill of exchange begins with "On demand", instead of "thirty days" it is a "demand bill" or "sight bill".

A Foreign Bill of Exchange

Rs. 1,000/- July 1, 1963.

Sixty days after sight of this First of Exchange (second and third of the same tenor and date, unpaid) pay to the order of the *Central Bank of India Ltd.*, the sum of Rs. 1,000 only for value received.

For M/s. S. Chand & Co.,
Gauri Shankar
Manager.

M/s. A. V. Thomas and Sons,
Sheffield, England.

The drawer sends the bill to the drawee who "accepts" it by signing it and putting his office stamp on it. The bill now becomes a negotiable instrument and can be bought and sold in the market. The drawer can now discount it and change it into cash on paying a commission called *discount*, to some firm or bank. It may pass through several hands before it ultimately matures or falls due for payment when the drawee pays his debt by honouring the bill.

If the drawee is not very well-known, he secures the services of an *Accepting House* to sign and accept the Bill. Such houses or firms specialize in providing guarantees and charge a commission for their services. To perform such services the Accepting Houses have to keep themselves well informed of the financinl position of the merchants on whose behalf they accept the bills.

How a Bill functions ? Let us illustrate how a bill functions. Suppose X, a merchant of Bombay, sends oil-seeds worth Rs. 1,500 to Y, at Marseilles in France. Now Mr. X has to charge Monsieur Y the sum of Rs. 1,500. He draws a bill on Y for that amount, and sends it to him. Mon. Y has to pay down cash if it is a *sight bill.* But, if it is a *time bill*, he accepts it by signing and stamping it or getting the same done by an Accepting House. Then Mon. Y returns the bill to Mr. X. Mr. X may choose to wait for his money for the period mentioned in the bill when it will "mature". If, however, he needs money urgently, he gets it discounted in a bank or a discount house. Thus he will get Rs. 1,500 *minus* the commission charged by the bank or the discounting company, which purchases the bill. The bank or the company may hold it till the payment is due or pass it on for rediscounting to some othar bank. When mature, the bill will be presented to Mon. Y for payment. Even then no money may be shipped from Marseilles to Bombay because a similar bill may have been drawn on some Bombay importer. It is the business of Exchange Banks to balance such bills against one another and save the bother and expense of sending gold back and forth.

Advantages of a Bill of Exchange. A Bill of Exchange thus performs important functions. *Firstly*, "neither the exporter nor the importer has to go without his money while the goods are in transit." —(*Sayers*). The exporter gets his money from a bank and the importer does not have to pay immediately. He pays it after he has sold the goods and has funds in hand.

Secondly, funds lying idle in banks are invested in Bills of Exchange and are profitably employed. Banks particularly favour this form of investment because money is not locked up for long and can be withdrawn easily. It is said that a good bank manager knows the difference between a bill and a mortgage. The bills discounted set up a regular stream of money flowing in and out. *Thirdly*, gold and silver are saved from being transported between countries. Exports are made to balancc against imports through the bill market without movement of gold. *Lastly*, while the buyer pays in his own currency, the seller is paid in his own. Exchange Banks undertake the whole work and individuals are saved from all bother and inconvenience.

(*iii*) *Hundis.* We, in India, are more familiar with *hundis* as they are commonly used. They are internal bills of exchange in one of our own languages, and have been prevalent in India long before the dawn of civilization elsewhere.

Hundis are *Darshani* (sight bills) and *Miadi* or *Muddati* (time bills) on the basis of the time allowed to the debtor. *Hundiana* is the commission sometimes deducted by the lender from the amount

advanced. Specimens of the two types of hundis used in India (translated in English) are given below :—

Muddati (or Miadi) Hundi

No.....M/s. Dinanath Kasturilal
Stamp Vendors

No. 469 Due Date June 28, 1963

Rs. 1000/- Date April 28, 1963

(60) Sixty days khara after this date I/we M/s. *S. Chand & Co.*, promise to pay Messrs. Singh and Co. or order in *Delhi* the sum of Rs. 1000/- only for value received in cash.

(Signature) *Shyam Lal*
Per Pro
M/s. S. Chand & Co., Delhi.
Through *Krishan Chand Ahluwalia*
(Broker)

Darshani Hundi

On demand please pay to *M/s. Premier Book Co., Delhi* **the sum of Rs.** *1000/-* **only for value received in cash.**

To

M/s. S. Chand & Co.
Chandni Chowk
Delhi

Drawer's Signature Gauri Shankar

(*iv*) *Cheque.* This is the most common instrument of credit and almost works like money. It is a written order on a printed form by a depositor (drawer) to his bank to pay a sum of money to himself or to somebody else whose name is entered on it or to the bearer, the man who holds (*i.e.*, drawee). No bank ordinarily refuses to pay money for a cheque, provided it is correctly filled in and there is enough money in the drawer's account with the bank. A specimen cheque is given on the next page. The counterfoil with the drawer serves as a record of the payment.

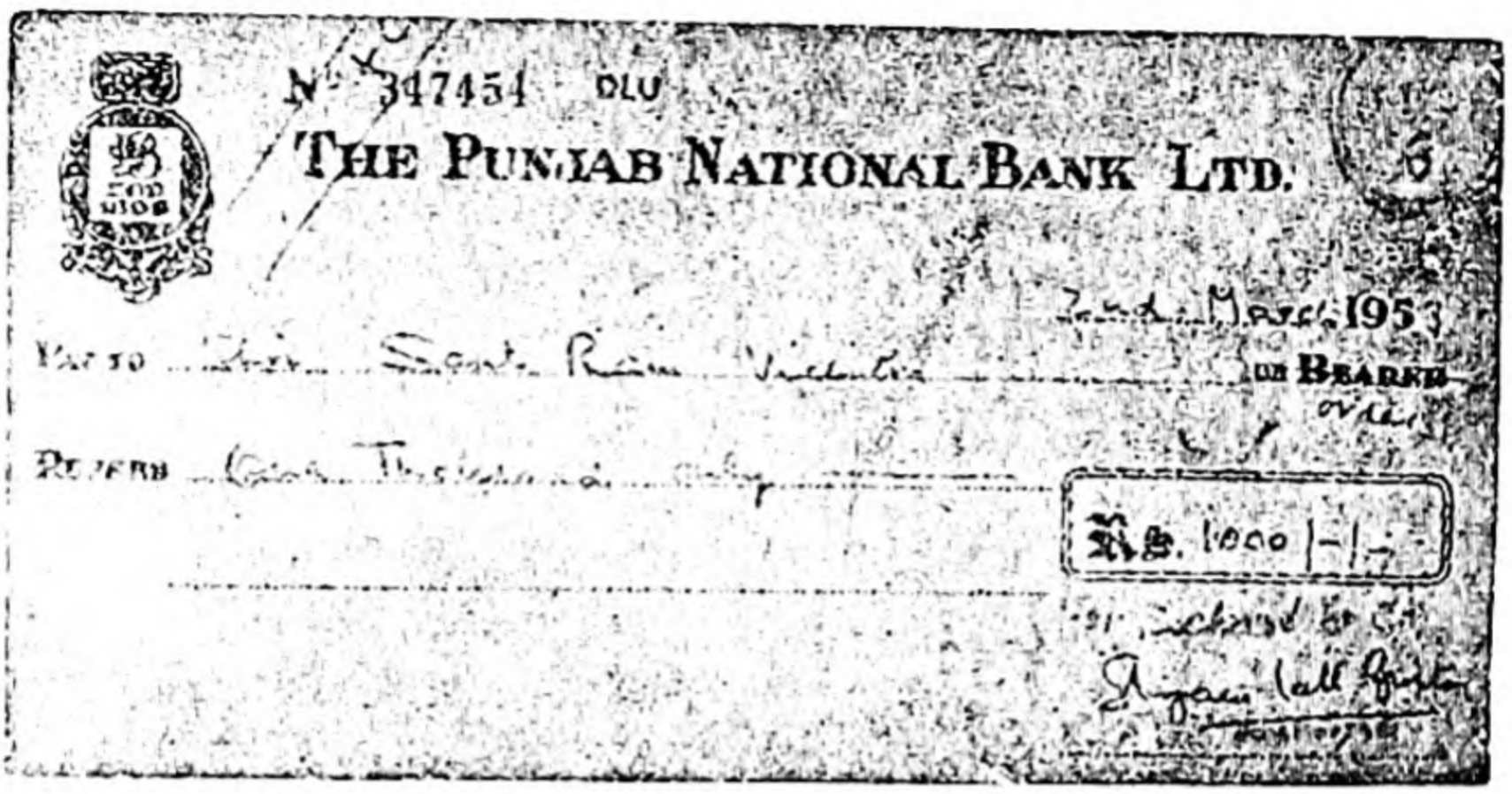
Cheques

Cheques are of the following kinds :—

(*a*) *A "bearer cheque"*. Any one can get such a cheque cashed. In this case, the bank need not worry as to who presents it at the counter. If a bearer cheque is lost, the finder can cash it unless the bank is notified in time to stop the payment. The drawer runs the risk of losing his money and not the bank.

(*b*) *An "order cheque"*. The word "bearer" after the payee's name is crossed out as in the cheque form below and the word "order" written instead. It is a safer form of payment because the

bank is responsible for paying the money to the right person. The person who presents the cheque at the counter has to prove his identity before the proceeds of the cheque can be paid to him.



(c) *A "crossed cheque."* This is the safest form of payment as it cannot be cashed at the bank counter. The payee cannot get the proceeds of the cheque in cash. He can only get the sum transferred to his own or (after endorsing) to somebody else's account. A cheque is "crossed" by drawing two parallel lines across its face or in a corner and writing the words "& Co." between them. The specimen given above is crossed. If it is crossed "Payee's A/c," then cash cannot be obtained from the bank, the amount of the cheque can only be credited to the payee's A/c.

(d) *A "post-dated"* cheque is a way of making payments sometime in the future. If you have to pay a hundred rupees to a friend after a month, you may draw a cheque in his favour and put down the future date. It can be cashed only after that date.

(e) *A "blank cheque"* means an unlimited offer because the signature is put whereas the space for the amount is left blank to be filled in by the drawee. Such cheques are usully handed over in romances or films ! Nobody ordinarily signs a blank cheque.

Advantages of Cheques. The cheque has economized the use of money. No cash need be paid. Moreover, its great convenience lies in that the payment can be exact to a pie. There is no fear of loss when the cheque is crossed. Thus it is a safe method of payment besides being convenient. Again, the counterfoil of the cheque serves as a receipt and, therefore, ensures honesty. The account of the transaction is with the bank and can be called for evidence if needed. But it requires confidence in the drawer as well as the bank for acceptance. Since it is not legal tender, acceptance is not compulsory.

(v) *Draft.* A cheque can also be used to remit funds to another place. But as the account is held in a different place from where the cheque is presented, the latter branch of the bank normally gets in touch with the former before making the payment. To avoid this botheration, a banker's draft is used. *A draft is a cheque drawn by*

a bank on its own branch or on another bank requiring the latter to pay a specified amount to the person named in it or order thereof.

If you want to send a birthday present in the form of money to a friend at Bombay, you can deposit the amount with, say, the Punjab National Bank, get a draft in your friend's favour on the banks' Bombay branch, and send it to him under a registered cover. When the draft is presented at the Bombay bank, it will be cashed after the claimant has been identified to be the person in whose name it has been drawn. A person need not carry a large sum of money on his travels and run the risk of being robbed. He can get a draft in his own favour and avoid the danger and trouble of carrying cash. A traveller's cheque, such as is given by the State Bank of India, or some other Tourist Agency also saves bother and avoids the risk. A specimen bank draft is given below :

STATE BANK OF INDIA

Under Rupees One Thousand and one only

STATE BANK OF INDIA

No. **JB 03735** *Delhi July* 1, 1963

Rs. 1000/- *On Demand pay to*

M/s Dewett Bros. *or order*

Rupees One Thousand only

for value received

For *State Bank of India*

To *Agent,*

State Bank of India,
Hoshiarpur.

Accountant

The cheapest method of sending money is through a bank draft. A Bank does not usually charge more than -/1/- per hundred if the amount to be sent is not less than a thousand rupees and if it has a branch at the place of payment.

3. **Clearing House.** One great advantage that follows from the use of cheques is that we do not have to carry pocketful of notes or coins for our purchases. In countries where people have developed the banking habit, rarely is a purchase paid for in cash unless it is a very small sum. The people who are paid in cheques do not get them cashed but just pay them into their accounts at their bank. Thus if both the persons have a common bank, a mere alteration in their balances completes the transaction.

When there are more banks than one in a locality and the two persons have accounts with different banks, the process is not so simple. Every bank receives during the course of the day cheques on other banks in favour of its customers. To send cash back and

forth from one bank to another every day would be very troublesome. To avoid this trouble the device of a *Clearing House* is used. The agents of all the local banks meet at a fixed place after the working hours and balance their claims against one another When simple book entries have cancelled most of the obligations, a small balance may be claimed by one bank on the other. This is usually settled through a cheque on the Central Bank (the Reserve Bank of India or the State Bank of India) with which all commercial banks have to keep accounts. There are Clearing Houses in important cities in India, the most important being those in Bombay and Calcutta.

4. **Uses of Credit.** Credit is immensely useful in the type of economic organization found today. We sum up the services rendered by it below :—

(*i*) It makes possible a steady flow of goods from the wholesaler to the retailer and from him to the consumer. Thus it replaces wild activity and sluggish dullness which would otherwise succeed each other and unbalance the economy of the country. Credit oils the wheels of business and makes it run smoothly.

(*ii*) It economizes the use of coins as well as currency notes. More exchanges are possible while money transfers are reduced through the cancellation of most of the debits and credits. Thus it serves as a very good and convenient medium of exchange.

(*iii*) It finances trade and industry through big loans at low rates of interest and helps to increase the output of goods. Thus it brings about economic development of the country.

(*iv*) Savings are utilized to help production. The agency of credit brings together the man with idle funds and the man with ideas who can productively use those funds. Thus capital is rendered more productive. It promotes thrift and capital formation.

(*v*) Huge deposits are created by banks and lent out on the strength of only a small percentage of cash. The usual ratio is 10 to 20 p.c. In this manner business can be extended to a very large scale.

(*vi*) Bankers' drafts and bills of exchange promote international trade by avoiding transmission of specie from place to place. Without credit, these payments would be very troublesome. Credit thus promotes international trade.

5. **Abuses of Credit.** Credit has many advantages, but uncontrolled use of credit is dangerous. It may bring about an unhealthy expansion of business activity which later on ends in depression. Easy borrowing may give support to inefficient businessmen. Resources may be wasted through careless use. Wild speculation may result when credit is offered without proper investigation. Credit is one of the causes of inflation and high prices which bring much misery in their train. Thus credit encourages waste and extravagance, engenders speculation and gambling and prevents the process of weeding out weak enterprises by the natural process of the survival of the fittest. Thus credit is a very delicate and dangerous weapon and it must be used with utmost care. If it is kept within

proper limits and is provided on a sound basis it can be very beneficial.

The whole machinery of credit works through banks. We shall study banks and their functions in the next chapter.

WHAT WE GATHER FROM THIS CHAPTER

'Credit' refers to purchases in which price is not paid in cash. Instead a document is given by the purchaser as an acknowledgement of his debt. The document is called an *instrument of credit*. A *Credit Transaction*, therefore, is "protracted exchange." Credit involves confidence in the person's honesty and integrity. There are three C's of credit : character, capacity and capital.

Instruments of Credit. Business dealings cover a large area today. Written documents are necessary to ensure repayment later. They may be in the form of :

(*i*) *A Promissory Note* :—A written promise (IOU) from a debtor to a creditor to pay in the future.

(*ii*) *A Bill of Exchange.* An order by a creditor on a debtor to pay a certain sum of money which the debtor (or purchaser of goods) accepts by signing. The paper can be bought and sold in the discount market. Some firms, called Accepting Houses, specialize in the business of accepting such bills.

Advantages. The bill of exchange enables the seller to get his price, the purchaser to buy on credit and banks, etc., to lend their spare money on interest.

(*iii*) *Hundis* are the Indian form of bills of exchange and have existed for ages. They are of two kinds—Darshani (sight) and Miadi (time).

(*iv*) *Cheque.* It is most common and popular of all credit instruments. It is a written order by a depositor to his bank to pay a certain sum of money to a person named in it or to the bearer of the cheque.

(*a*) *Bearer Cheque.* Anybody can get it cashed. (*b*) *Order Cheque.* Only the person named can get it cashed. (*c*) *Crossed Cheque.* The money can be entered in one's account and not cashed. (*d*) *Post-dated Cheque.* Some future date is entered.

Advantages. A cheque is a safe and convenient form of payment. It saves the need of paying cash in every transaction.

(*v*) *A banker's draft* is a cheque drawn by a bank on its own branch or elsewhere on another bank to transfer funds to that place.

A Clearing House is an agency where cheques drawn on different banks are mutually balanced and cleared by their representatives.

Uses of Credit. (*a*) Economy of metallic money. (*b*) Cheap loans to businessmen. (*c*) Utilization of idle capital. (*d*) Makes possible loans larger than savings. (*e*) Facility in making international payments. (*f*) Helps to maintain a steady flow of goods from wholsalers to consumors.

Abuses of Credit. (*a*) Unhealthy expansion of business activity, (*b*) helping inefficient producers, (*c*) wasteful and careless use of resources, (*d*) causes inflation, etc.

If these risks are guarded against, credit can be very helpful in business.

CAN YOU ANSWER THE FOLLOWING QUESTIONS ?

1. *What is credit ? Describe the various instruments of credit giving a specimen of each.* [See Secs. 1 & 2.] (*Pb. Univ. H.S. 1962*)

2. *What do you understand by credit ? Name and describe the various instruments of credit and bring out the difference between a Bill of Exchange and a Bank Draft.* (*J. & K. 1960*)

3. *You have to pay Rs. 497-9-3 to Messrs. P.N. and B. Write this out in the form of a crossed cheque, a darshni hundi and a promissory note.* [See Sec. 2.]

4. *Give specimen forms of, and write notes on :*
   (a) *Bill of Exchange,* (*U.P. 1953*)
   (b) *Bank Draft,* (*U.P. 1953*)
   (c) *Crossed Cheque.* (*P.U. 1946 ; E.P.U. 1948*)
   (d) *Hundi.* (*U.P. 1953 ; P.U. 1947*)
   (e) *Promissory Note.* [See Sec. 2 for all.] (*U.P. 1953*)

5. *Discuss the various methods by which a man in Amritsar can send Rs. 200 to London, Bombay and Nawandpind (a small village in Jullundur district) quickly and safely.* [See Sec. 2.] (*E.P.U. 1948*)

6. *What is a bill of exchange ? How does it help in the internal or external trade of a country ?* [See Sec. 2 (*ii*).] (*U.P. Inter. Board 1947*)

7. *What is a cheque ? How does the cheque system benefit both the depositor and the Bank ?* [See Sec. 2 (*iv*).] (*U.P. Inter. Board 1948*)

8. *What are credit instruments ? Describe them and indicate their utility.* [See Secs. 2 and 4.] (*Cal. 1949 ; Cal. B. Com. 1932*)

9. *Describe the uses of credit. Indicate the various ways in which credit saves money and assists industry.* (*Cal. 1949 ; Calcutta B. Com. 1932*)
   [See Sec. 4.]

10. *Explain the Clearing House system and show how it leads to an economy in the use of money ?* [See Sec. 3.] (*Dacca 1942 ; Nagpur 1943*)

11. *What are the essentials of credit ? Show its importance and utility. What are its dangers ?* [See Secs. 1, 4 and 5.] (*U.P. Board 1946*)

12. *"Credit is a good servant but a bad master." Explain and discuss.* (*J. & K. 1955*)

Or

Show the importance and utility of credit. What are its dangers ?
[See Secs. 4 and 5.]

13. *What is credit ? Show the advantages and disadvantages of credit.* (*Gauhati 1958*)
[See Secs. 1, 4 and 5.]

CHAPTER XXVII

BANKS

"Those Factories of Credit"

1. **Definition of a Bank.** The proverb goes "Money begets money." "Bosh !" say you, "money in my box has begot nothing. And it has been lying there a whole year !" "This is not the way, you silly fool !" you are told. "Put it in some business or deposit it in a bank and then see." "Oh !" you reply.

Now it is understandable why money invested in a business or a factory should "breed", but it is not so easy to see how it breeds in a bank and why the bank pays interest to its depositors. Apparently a bank neither makes nor sells any goods. It may not seem to, but all the same it does sell a very important commodity. *It manufactures credit and sells it.* That is why we call a bank "a factory of credit."

Banks are like reservoirs. They collect the savings of some people and give them to others who can use them productively. In the process, they earn a commission, out of which they pay interest to those who save and deposit funds with them. A bank is an institution in which those people who have spare cash deposit it and from which those who need funds borrow them.

It appears that goldsmiths in old Italy used benches of a peculiar kind as their working tables. Their business came to be connected with this bench—the Italian word for which is "banco". This word gradually developed and passed into the hands of joint stock concerns known as "banks" today. It took the banks ages to be what they are today. Let us see how it happened.

2. **Evolution of Banks.** Long ago, when life was not so secure, saving was very risky. A man who came to be known as rich, ran the danger of losing his wealth, and often his life to boot, at the hands of outlaws. Goldsmiths, because of their profession, kept strong safes. Hence, the practice of depositing one's valuables and spare money with them for the sake of safety grew. They charged something for this service and returned the valuables when needed by the depositor.

They found from experience, however, that only a small portion of the cash they were entrusted with was withdrawn at any particular time. "A surplus could be put away, as it were, in a special safe which need rarely be opened." The idea of using the balances lying idle with them must have dawned upon the goldsmiths in time.

They also found that they were being constantly requested for loans on good security. It was not a bad idea to give on interest some of the surplus cash deposited with them and make a profit. One can imagine that depositors who might object would be pacified

by a remission of the charges for the "safe deposit" and would be made still more happy "by the payment of an interest on their money." Gradually receipts were issued by these bankers against deposits and these receipts began to pass from hand to hand in place of money. *This practice later on developed into the use of bank notes.*

The system was improved upon in another direction when withdrawals began to be made by written orders on these bankers. *These were the fore-runners of modern cheques.*

3. **Advantages of Banks.** Mechanised means of transport are the basis of modern international trade. The motor lorry, the railway train, the steamship and the aeroplane have worked wonders. They can easily carry and distribute all the numerous goods that are produced in large factories in each of which thousands of people work. Crores and crores of rupees are needed to maintain these various agents of transport or to run these factories. No single individual, however, is rich enough to undertake these vast activities single-handed. He must borrow funds. Credit is, therefore, indispensable for the industrialist, the trader, and the company promoter. The only agency that can provide the necessary credit is that of banks. They collect the small savings of millions of individuals into a vast pool and direct the huge sums collected into useful channels. Taken singly these savings are too small to be of any use and would be a total loss to society if banks did not collect them and lend them to industrialists and businessmen. The credit that flows out of the banks is thus *truly the life-blood of industry and trade.*

Besides lending money, banks transmit money from place to place and make international trade possible. They provide funds to farmers and cottage workers. They help to move the crops from one part of the country to the other. In fact, banking development is as essential for the economic development of a country as the digging of minerals, the establishment of factories and the conduct of trade. Without banks it would be impossible to collect funds from the idle rich and supply them to persons who have brains and energy, thus making large-scale production possible.

People of small means can save money and put it in savings bank account and earn interest. Valuables can be kept in safe custody. The banks perform a number of valuable agency functions on behalf of their customers. They also act as referees and financial advisers. Travellers' cheques issued by the banks are very convenient and safe, thus the banks are useful in a number of ways and render a great service to the community.

4. **Kinds of Banks.** During the last three centuries different types of banks have developed. Each type usually specializes in a particular kind of business. We can, therefore, distinguish the different banks according to the functions they perform. They are given below :

(*a*) *Commercial Banks.* These banks play the most important role in modern economic organisation. Their business mainly consists of receiving deposits, giving loans and financing the trade of a country. They provide short-term credit, *i.e.*, lend money for short periods not exceeding six months. This is their special feature.

(*b*) *Exchange Banks.* Exchange banks mostly finance the foreign trade of a country. Their main function is to discount, accept and collect foreign bills of exchange. They also buy and sell foreign currencies and help businessmen to convert their money into any foreign money they need. Their share in the internal trade of a country is usually small. In addition, they carry on ordinary banking business too.

(*c*) *Industrial Banks.* There are few industrial banks in India. But in some other countries notably Germany and Japan, these banks perform the function of advancing loans to industrial undertakings. Industries require capital for a long period for buying machinery and equipment. Industrial banks provide this type of block capital. Industrial banks have a large capital of their own. They also receive deposits for longer period. They are thus in a position to advance long-term loans.

In India, the Central Government set up an Industrial Finance Corporation in 1948. Its activities have been enlarged recently. Further, various States have also set up State Financial Corporations. Of late, the Central Government has also established the Industrial Credit and Investment Corporation and the National Industrial Development Corporation for the financing and promotion of industrial enterprises. These new institutions fill important gaps in our industrial finance.

(*d*) *Agricultural Banks.* The main business of Agricultural Banks is to provide funds to peasants. They are worked on the co-operative principle. Long-term capital is provided by *land mortgage* banks, while short-term loans are given by co-operative societies and co-operative banks. Long-term loans are needed by the farmers for permanent improvements of land while short-period loans help them in purchasing implements, cattle and seeds. Such banks and societies are doing useful work in India.

(*e*) *Savings Banks.* These banks perform the useful service of collecting small savings. Commercial banks too run "saving departments" to mobilize the savings of men of small means. The idea is to encourage thrift and discourage hoarding. Post Office Savings Banks in India are doing this useful work.

(*f*) *Central Banks.* Over and above the various types of banks mentioned above, there exists in most countries today a big central bank. It is usually controlled and quite often owned by the government of the country. The central bank performs very important services which we discuss below (Section 8) in detail. The Reserve Bank of India is such a bank in this country.

5. **Functions of Commercial Banks.** Banks act as intermediaries between those who have surplus money and those who need it. **To receive deposits and to advance loans** *are thus the two main functions of all commercial or joint-stock banks.* In short, *they borrow to lend.* They borrow in the form of deposits and lend in various forms of advances. Besides, there are other incidental functions which have developed according to the needs of society. We discuss all of them below :—

(*a*) **Accepting Deposits.** Banks attract the idle savings of people in the form of deposits. These deposits may be of any of the following types :—

(*i*) *Short-term or demand deposits, also known as current accounts.* These are repayable on *demand* without any notice. Usually no interest is paid on them because the bank cannot utilize short-term deposits and must keep almost cent per cent reserve against them. On the other hand, a little commission is charged for the service rendered. Occasionally, however, a small interest is paid to people who keep large balances.

(*ii*) *Fixed Deposits or Time Deposits.* These deposits can be withdrawn only after the expiry of the period for which these deposits are made. Higher interest is paid on them—the rate rising with the length of the period and the amount of deposit. The usual rate in India today is $2\frac{1}{2}\%$ for 6 months rising to $3\frac{3}{4}\%$ for 5 years.

(*iii*) *Savings Bank Deposits.* These deposits stand midway between current and fixed accounts. One or two withdrawals up to a limit of one-fourth of the deposit but not more than Rs. 500 to Rs. 1,000 are allowed in a week. The rate of interest is less than that on Fixed Deposit.

(*b*) **Giving Loans.** But receiving of deposits is not the whole story about a bank's functions. If that were so, how could a bank pay interest ? Hence, after collecting money, a bank invests it or lends it out. Money is lent to businessmen and traders usually for short periods only. This is so because the bank must keep itself ready to meet the demand of the depositors who have deposited money for short periods. Money is advanced by the banks in any one of the following ways :—

(*i*) *By allowing an over-draft.* Customers of standing are given the right to overdraw their accounts. In other words, they can get more than they have deposited but they have to pay interest on the extra amount which has to be repaid within a short period. The amount of permissible over-draft varies with the financial position of the borrower.

(*ii*) *By 'creating a deposit'.* Cash credit is another way of lending by the banks. When a person wants a loan from a bank, he has to satisfy the manager about his ability to repay, the soundness of his venture and his honesty of purpose. After that the bank may require a tangible security, or it may be satisfied with the borrower's personal security. Usually such security is accepted as can be easily disposed of in the market, *e.g.*, government securities or shares of approved concerns. Then details about time and rate of interest are settled and the loan is advanced. A borrower rarely wants to draw the whole amount of his loan in cash. Usually he opens a current account with that amount in the bank, if he already has not an account with this bank. Now it is exactly as if that sum had been deposited by him. This is how a deposit is 'created' by a bank. That is why it is said "*every bank loan creates a deposit.*" A cheque-book is given to the borrower with the right to draw cheques

up to the full amount of the loan, but interest is charged on the whole sum even though only a part is withdrawn.

After the period for which the money has been borrowed is over, the borrower returns the amount with interest to the bank. Banks make most of their profits thus by giving loans.

(*c*) **Discounting Bills.** The discounting of bills is another way of lending money. We described in the last chapter how bills are discounted. The banks purchase these bills through bill-brokers and discount companies or discount them directly for the merchants. *These bills provide a very liquid asset*, (*i.e.*, an asset which can be easily turned into cash). The banks immediately pay cash for the bill after deducting the discount (*interest*) and wait for the bill to mature when they get back its full value.

The investment is quite safe, because a bill bears the security of two businessmen, the drawee as well as the drawer, so that if one proves dishonest or fails, the bank can claim the money from the other. This is regarded as the best investment by the banks. It is liquid, lucrative and safe. That is why it is said that a good bank manager knows the difference between a bill and a mortgage.

(*d*) **Remitting Funds.** Banks remit funds for their customers to any place where they have branches or agencies through bank draft. This is the cheapest way of sending money. It is also quite safe. Funds can also be remitted to foreign countries.

(*e*) **Minor Functions.** A bank nowadays serves its customers in various other ways. It has '*safe deposit vaults*'. They are meant to keep the valuables of customers in safe custody. *Further*, a bank *collects interests* on behalf of its customers *as well as pays dividends* on behalf of joint-stock companies. *It purchases and sells for its clients, stocks and shares* of companies. *It executes the wills of* deceased customers and acts for them as a trustee.

6. **The Balance Sheet of a Bank.** A good deal of light can be thrown on the working of a bank by its balance sheet, which it is required to issue every week. But it is not easy for a layman to understand it. We give below items that would appear in the balance sheet of, say, the State Bank of India[1] to illustrate the point.

Statement of Affairs for the week ended July 1, 1962

Liabilities (*in lakhs of Rs.*)	*Assets* (*in lakhs of Rs.*)
Paid up Capital ...	Cash in hand and with Reserve Bank ...
Reserve Fund and other Reserves	Balances with other Banks ...
Deposits and other Accounts	Money at Call and Short Notice ...
Bills Payable ...	
Bills for Collection ...	

1. In July, 1955, the Imperial Bank of India, along with certain other banks, has been formed into the State Bank of India.

Liabilities (in lakhs of Rs.)		*Assets (in lakhs of Rs.)*	
Acceptances, etc.	...	Govt. and other Trustee Securities	...
Borrowing from other Banking Cos. etc.	...	Other authorised Investments	...
Other Liabilities	...	Loans, Cash Credits, other Over-drafts, etc.	
		Bill Discounted and Purchased	...
		Bills Receivable	...
		Acceptances, etc.	...
		Premises (less depreciation	...
		Furniture and Fixtures (less depreciation)	...
		Other Assets	...
Total	...	Total	...

The balance sheet has two columns. The left-hand column, called *Liabilities*, gives the total claims that can be made on the bank by depositors, shareholders and others ; the column on the right, the *Assets* column, gives the cash reserves, cash in hand, investments and other claims of the bank on others as well as the property that it owns.

Liabilities. The *paid-up capital and reserve fund* ultimately belong to the shareholders and as such they are a liability of the bank. The bank carries on its business on their basis but reserves are meant mainly for a time of emergency.

Deposits are of two kinds, current (demand) deposits and fixed (time) deposits. Deposits are also a bank's liability. The bank owes them to the depositors. *Current account deposits* can be withdrawn by depositors on demand while fixed deposits are withdrawable only after the period of the deposits is over. Usually no interest is paid on current account deposits, while in regard to fixed deposits, the rate varies with the amount as well as period of time for which they are deposited. The interest rate increases with the amount and period for which the money is put in the bank. Another item on the liability side is '*Acceptances*'. These consist of bills which the bank may have accepted on behalf of its customers. The bank is liable to pay the amounts of these bills only if the customers fail to pay them. Then there are miscellaneous or other liabilities.

Assets. The items on the right-hand side throw light on the bank's activities. The *first* item is '*Cash*'. The bank has to keep some cash to meet the calls of its depositors for their daily needs. The bank knows by experience how much money to keep for this purpose. *The cash with the Reserve Bank* is also as good as cash in hand. It is even better, because it gives the customers greater

confidence in the bank. Money at call represents loans given by the bank for a very short period, say a week. The bank can call upon the borrowers to repay such advances immediately. Next are securities and other investments.

The bank invests funds in Central, State and Local Government securities. It also buys some bonds and shares of industrial concerns approved by the central bank. Of course, some of these securities can be easily sold at a time of need, but others may fall in value and may not easily saleable in a crisis. It is necessary for the bank, therefore, to keep its resources as *'liquid'* as possible. Then come *'loans and advances'* which the bank has granted to its customers. Usually these loans are backed by approved shares and securities but sometimes small amounts are advanced to safe customers on their personal security. Such *'over-drafts'* are for very short periods and are automatically adjusted when the customer pays in money.

'Bills discounted' is the next item on the assets side. Such bills mature after a fixed period. Trade bills do not run for more than 90 days in any case and are a very safe investment. In India agricultural bills can run for 15 months. Banks can invest their funds in these bills too. Unfortunately there is not as big a bill market in this country as in others. Banks, therefore, cannot do as much business in this direction as they would like to. During the last few years, the Reserve Bank has been trying to develop a bill market in India.

The last item in the assets list is *'deadstock'* mainly consisting of lands, buildings and furniture. They are the least liquid of a bank's holdings and impossible to sell at reasonable prices on a falling market. This is why banks do not lock up their funds in them and usually invest in secured loans and bills.

It is not easy to read a bank balance sheet. Banks in some countries have different days for publishing their balance sheets. On the day a bank has its turn, it sells out a number of bills and securities and secures cash from another bank. This increases its cash reserve for the day. The very next day that money is thrown back into the market, ready for being used by the next bank. This temporary calling in of reserves shows each bank in turn to have more liquid resources than it actually has. Thus the same amount serves to increase the cash resources of a number of banks in turn. This practice, called *'window dressing'*, is objectionable. If a country has a strong central bank, it can be stopped. The Reserve Bank of India since its nationalisation, has rid the country of many such evil practices.

7. Test of a Bank's Soundness. *Profits versus Reserves.* The balance sheet of a bank can give us an idea of its position. The ratio of the bank's reserves to its liabilities is the basis of our judgment. You know that a bank can lend large amounts of money on the strength of a small cash holding. This is called 'creation of credit'. If, tempted by easy profits, it carries this practice too far and does not keep adequate reserves, it may get into danger. Even a small 'rush' on it may land it in the bankruptcy court. Further, if

the bank locks up its funds in long-term investments (like factories, lands and houses which cannot be sold at a pinch), it may have to close its doors one day.

We may then conclude that for achieving soundness—

(*a*) a bank should not advance funds for speculation ;

(*b*) it should not invest heavily in industrial undertakings which yield returns only after long periods ;

(*c*) it should not lend *very* large sums of money to an individual. If he fails, the bank may have to face ruin ;

(*d*) it should maintain a high ratio of cash to deposits, loans and advances. Its other reserves should be as liquid as possible.

Thus on the one side are profits and on the other reserves. High reserves mean less profits. The bank has to follow a path midway between the two extremes. It should strike a happy compromise between *liquidity* on the one side and *profitability* on the other. It has to earn profits but not at the risk of over-lending and speculation. It must keep sufficient liquid assets so that it may be able to meet the demands of the depositors. If the bank itself speculates, it may have to face disaster one day. The early history of joint-stock banking in India is full of examples where a bank had to close doors on account of its speculative activities. The failure of the Alliance Bank of Simla, a very big bank, was mainly due to this.

There is no fixed principle about the proportion of reserves to liabilities. In the last resort, the amount of reserve depends upon the normal demands of a bank's customers. To meet sudden calls—and no one can predict them—the bank's investments should be as liquid as possible so that they can be easily realised. Nowadays every bank has to keep a percentage of its deposits with the central bank of the country. These balances, called bankers' deposits, are as good as money in the bank's own till. The central bank uses them as a handle to control its member banks and the total issue of credit in the country. They are also used to help member banks in an emergency if otherwise they are sound.

It is seen that in countries, where the people are educated and bank-minded, the ratio of reserves to advances is lower than in backward countries. In U.K. this ratio sometimes falls as low as 9% while in India it is usually higher than 10%. The ratio is lower in the case of old banks with a reputation than in the case of smaller new banks. Deposit insurance schemes are intended to inspire faith among the people in the banking system and thus give it strength and stability.

8. **Central Bank.** During the First World War and in the post-war period, many countries were faced with difficulties in the control of their currency and credit. The growth of central banking was a direct result of these difficulties. Today it is seen that almost every country has a central bank. This bank is expected to maintain and safeguard the monetary standard of the country. In the process *it is not expected to earn profits.* Thus even if it is a private institution, it is not allowed to declare dividends above a certain fixed low rate (about 5%) ; nor is it allowed to be under party influence. It

has to perform its ordinary functions without let or hindrance, whichever party may be in power, in democratic countries. Let us now study the functions of a central bank.

Functions of a Central Bank. (1) *Monopoly of Note-Issue.* Formerly, in certain countries, many banks issued their notes. This resulted in uncontrolled confusion. Hence gradually the right of note-issue was withdrawn from ordinary banks. Note-issue became sole privilege of the central bank in a country and its notes became full legal tender.

In issuing notes, the central bank has to follow rules laid down by law. It has compulsorily to maintain reserves of gold, silver, and selected securities in fixed proportions to inspire confidence in the people in the paper currency and its convertibility. Such proportions differ from country to country and governed by its peculiar circumstances. Thus the Reserve Bank of India holds against notes in circulation Rs. 40 crores in gold, besides Government of India and sterling securities and dollar securities. Recently, the system of keeping reserves against note-issue has been changed. The Reserve Bank now (since October, 1957) is required to keep a minimum reserve of Rs. 200 crores, of which not less than Rs. 115 crores must be in gold.

(2) *Bankers' Bank.* All other banks in the country are bound by law to keep a fixed portion of their total doposits as reserve with the central bank. These reserves help the central bank to control the issue of credit by commercial banks. They in return can depend upon the central bank for support in time of emergency. This help may be in the form of a loan on the strength of approved securities or through a rediscount of bills of exchange. Thus the central bank is the last refuge of other banks in difficult times, because on such occasions, there is no hope of getting help from any competing institution.

To turn to India. Here the scheduled banks have to keep in deposit with the Reserve Bank not less than 5% of their current or demand deposits and 2% of their fixed or time deposits as reserve. In return they enjoy the privilege of rediscounting their paper with the Reserve Bank as well as securing loans against *approved* securities when in need.

(3) *State Banker.* Previously Governments in all countries had to maintain a large number of treasuries all over the country. Now their funds are kept with the Central Bank. This is a privilege for the Bank as well as a responsibility. A central bank is required to lend money to Central, Provincial (State) and Local governments when called upon to do so. Taxes flow to Government only in certain parts of the year while funds are wanted at all times. Hence Governments borrow temporarily from the central bank in times of need. These loans are called "ways and means advances". Besides these, all other government loans, temporary (like treasury bills) and permanent, are floated through the central bank. In addition, it remits government funds, purchases foreign currencies, as well as manages the public debt. Another important provision is that though it *keeps government funds, it pays no interest on them.* In

return, the government guarantees the stability of the central bank as well as supervises its activities.

The Reserve Bank of India performs all these functions for the Central and State Governments and big municipal corporations.

(4) *Guardian of the Money Market.* This phrase clearly denotes the important part played by a central bank in the credit and currency of a country. We have seen that credit has a much influence on prices in a country as money and the creation of credit is one of the important functions of commercial banks. Fluctuating prices are a source of danger to the economy of a country. The duty of keeping the economic life stable lies on the central bank. To fulfil this task (*a*) it can prohibit or control the inflow or outflow of gold, and (*b*) it can control the total volume of credit in the country in three ways :—

(*i*) *By a change in bank rate.* A high rate means a higher charge by the central bank to rediscount bills. This discourages traders from borrowing much. A lower rate works in the opposite direction. Since the Reserve Bank was established in India in 1935, the bank rate was maintained at 3% till November 15, 1951, when it was raised to 3½% and subsequently in May 1957 to 4%.

(*ii*) *By 'open market operation'.* If the banks wants to create 'easy money' conditions, it purchases securities and releases funds into the market. This encourages the creation of credit. A sale of securities by the bank removes surplus money from the money market.

(*iii*) *By changing the reserve ratios of other banks.* The central bank may require other banks to keep higher or lower reserves against deposits. In America, the Federal Reserve System has this power. A higher reserve ratio will withdraw cash from the banks and leave them less resources to create credit, and *vice versa.*

(*iv*) *Quantitative and Qualitative Controls.* Recently the central banks have started the practice of giving directions to the banks asking them to curtail credit quantitatively or give or stop giving advances against certain commodities. These have been called *selective credit control.* The Reserve Bank of India has been making an increasing use of this method in recent years.

(5) *The central bank has also to keep the foreign value of the home currency stable.* For example, in India the Reserve Bank has kept the rupee at 1s. 6d. sterling though there has been devaluation of currency in relation to the dollar (in 1949). This was due to the reasons that India's trade balance with U.S.A. was becoming very unfavourable. U.K. also devalued her currency in relation to the dollar. Other British Commonwealth countries followed U.K. except Pakistan which devalued only in 1955. That is why from 1949 to 1955 Rs. 100 (Pakistan) were equal to Rs. 144 (Indian). Now, of course, officially Rs. 100 (Pakistan) are equal to Rs. 100 (Indian). Actually the value of the Pakistani rupee in the market has been less than that of the Indian rupee. In short, money should have a stable purchasing power, not only inside a country but outside as well. This is what the central bank has to ensure.

(6) *The central bank performs the duty of a Clearing House for cheques.* It settles the accounts of commercial banks and enables them to clear their dues by the process of book entries.

It should be carefully noted that *a central bank does not come in competition with other banks. Nor does it pay interest* on the money kept with it. If it is a government-owned institution, it pays no dividends and if a private one, it distributes low dividends and hands over extra profits to the government. The Réserve Bank of India is now a national bank and distributes no profits.

9. **The Reserve Bank of India.** The Reserve Bank of India is the central bank of this country. It was established in 1935 as a shareholders' bank under Government supervision. In 1949, it was nationalised. It performs all the functions which any central bank performs. It issues notes and keeps reserves as laid down under the Act. It is a bankers' bank. All scheduled banks have to maintain reserves in it. It allows no interest on deposits lying with it. It performs all services it is called upon to do for the Government. It is now a strong guardian of the Indian money market. It also maintains the external ratio of the country as a required by Government policy. It has tried to improve the banking system of the country by means of bank legislation and by issuing directives. It has helped banks in difficulties and prevented bank failures. It has controlled credit and hence price fluctuations. In recent years it has been following a policy of selective credit control by restricting advances against certain commodities. The control is very flexible and changes as conditions change. It has helped in agricultural and industrial finance and helped the Government to find finances for the development plans of the country. It has tried to develop a bill market in the country.

In short, the Reserve Bank of India has been a very successful central bank and we can be legitimately proud of its achievements. However, its control over the money market is limited since indigenous banks, supplying 90% credit, are outside its control.

10. **Exchange Banks.** These are huge concerns with vast capital. Their activities cover the whole globe in the financing of international trade. They do business on a very small margin, but as the business is vast, their total profits are huge. India has no exchange bank of her own. Her joint-stock banks finance the foreign trade to a small extent. India should have a first class exchange bank now that she is free. The need for such an institution has been rendered all the more urgent because of the programmes of economic development now in hand.

WHAT WE GATHER FROM THIS CHAPTER

Definition of Banks. It is an institution which receives deposits from the public and makes advances to businessmen. A bank creates 'credit' and earns commission in the process.

Evolution of Banks. The term bank originated from the Italian 'banco' or 'bench' on which money-changers or goldsmiths sat and changed coins for people. People trusted them with money to be kept safe and to be withdrawn at the time of need. Experience showed these bankers that large sums of money almost always remained with them. "Well", someone must have argued, "why not lend it on interest ?" By and by they began to issue receipts for deposits, which would be used in place of money.

Advantages of Banks :

(1) They help industrialists.
(2) They give financial aid to traders.
(3) They mobilise savings of individuals and help in capital formation.
(4) They grant remittance facilities.
(5) They help in the movement of crops.
(6) They facilitate travelling.
(7) They arrange for safe custody.
(8) They perform agency functions on behalf of their customers.

Banks are classified as :

(1) *Commercial banks* which finance trade and grant short-term credit.
(2) *Exchange banks* which finance foreign trade.
(3) *Industrial banks* which provide long-term credit to industries.
(4) *Co-operative banks* which provide credit to poorer people and agriculturists.
(5) *Savings banks* which help people with small incomes to save.
(6) *Central bank.*

Functions of Banks. "A bank is an institution which deals in money". It performs these functions:

(*i*) *It accepts deposits*—current, fixed or saving accounts according to the notice necessary to withdraw them.

(*ii*) *It advances loans* through granting over-drafts, or by 'creating deposits', *i.e.*, cash credit system.

(*iii*) *It discounts bills.* A bank accepts bill of exchange and pays their current value minus discount. It keeps them till maturity and saves the difference as its profit.

(*iv*) *It performs some other minor functions, e.g.*, it acts as an agent for its clients, serves as a trustee, executes wills and provides safe deposit vaults.

Balance Sheet. Every bank publishes weekly statements of its financial position. There are two columns in the balance sheet—'liabilities' and 'assets', But the real position can be concealed through "window-dressing", which means getting cash temporarily for show.

Bank Reserves and Profit. To perform its functions satisfactorily a bank must keep reserves in the form of (*a*) cash in its till, (*b*) cash reserve with the central bank, and (*c*) liquid investments which can be changed into cash when needed. At the same time, it must earn profit and for that purpose invest its funds. It must, therefore, strike a mean between liquidity and profitability.

Central Bank. To safeguard the monetary interests of a country, there must be a central bank.

Functions of Central Bank. (1) It has the monopoly of note-issue. It has, further, to keep the value of currency stable. For this, metallic reserve has to be kept by the Central Bank. (2) It acts as the bankers' bank and is the lender in the last resort. (3) It is banker to the Government. (4) It is the guardian of money market. It acts in this capacity by (*a*) changing the bank rate, *i.e.*, lowering it if more credit is desired to be issued and *vice versa*, (*b*) by 'open market operations', *i.e.*, by buying or selling bills and securities in the open market, and (*c*) by changing the reserve ratios of commercial banks.

Tht Central Bank does not function for the sake of profit. It does not compete with other banks.

The Reserve Bank of India. It is the Central Bank of India, was established in 1935 and nationalised in 1949. It performs all the functions of a Central Bank. It has proved a very successful Central Bank.

Exchange Banks. They finance international trade. India has no such bank of her own.

CAN YOU ANSWER THE FOLLOWING QUESTIONS ?

1. *"It is the function of the banking system to keep the wheels of production running." Elucidate the above statement and indicate the economic benefits that a country derives from a sound banking organisation.* (*C.U. 1953*)

[See Sec. 3. Banking system mobilises the idle funds of the country, and in its turn oils the wheels of productive machinery.]

2. *How do banks help trade and industry ? Do you need different kinds of banks to finance agriculture, trade and industry ? Why ?* (*Ajmer 1955*)

[See Secs. 3 and 4. These are the days of specialisation and hence different kinds of banks.]

3. *What is a bank ? Enumerate the various types of banks and detail the types of works they specialise in.* [See Sec. 4.] (*J. & K. 1958 ; P.U. 1958*)

Or,

What are banks ? Classify them according to their functions and explain the functions of commercial banks. [See Secs. 1, 4 and 5.] (*Bombay 1953*)

4. *How does the banking system of a country help its economic development ?*

[Capital grows through saving. Capital is very essential for economic progress. Credit further facilitates industrial development and commerce. Banks help in the formation of capital and supply credit.]

5. *What are the services performed by a bank ? Is the village Mahajan in India a banker in the true sense of term ?*

[Sea Secs. 3 and 4.] (*U.P. Inter. Board 1947*)

[No, the village Mahajan is not a banker in the true sense of the word.]

6. (*a*) *What is a bank ? Describe the functions of a modern bank. Discuss "Bank is a factory of credit."*

(*C.U. 1947 ; C.U.B. Com. 1939 ; All. 1937 ; Delhi 1940 ; U.P. Board 1956*)

(*b*) *Fill in the blanks by using one of the words in brackets—*

The banks ..... (do pay, do not pay) interest on current and demand deposits.

[See Section 1 and Section 5 (*b*) (*ii*). The power of a bank to create credit is limited. It is checked by the need for reserves and by the policy of the central bank.]

7. *Name three or four important commercial banks of India. Describe their main functions.* [See Secs. 4 (*a*) and 5.] (*Delhi H.S. 1960*)

8. *Indicate carefully the functions of a commercial bank. Why is it said that the function of a banker is that of a middle-man ?* (*Delhi 1955*)

Or,

What are the important functions of commercial banks ? Do you agree with the view that "banks are factories of credit" ? [See Sec. 5.] (*J. & K. 1956*)

Or,

Explain how bank creates credit.

9. *Draw up the balance sheet of any commercial bank working in your State. Explain clearly the items entered in the two columns of the balance sheet.*

[See Sec. 6.] (*P.U. 1953*)

10. *What is a bank ? Describe the various forms of money that banks usually create.* (*P.U. 1943*)

[See Secs. 1 and 5 (*b*) (*ii*). Strictly, it is not currency money that banks (excepting the Central Bank) create but credit money.]

11. *How does a bank make its profits ? What is meant by "run upon a bank" ? In what cases may a run upon a bank cause its failure ?* (*P.U. 1935*)

12. *If you have to make payment to a distant place in India what form of remittance would you choose, and why ?* (*P.U. 1942*)

[It can be done through a money order (telegraphic or ordinary), a postal order, a cheque, or a bank draft. A bank draft is the

cheapest, the safest and the most convenient method if the locality has a bank, otherwise a money order is more convenient.]

13. *What limits, if any, are there on a bank's power of creating credit ?*
[See Sec. 7.] (*C.U.B. Com. 1940 ; All. 1940 ; Agra 1928*)

14. *What is a Central Bank ? What are its functions ? Is the Reserve Bank of India performing these functions successfully ?*
[See Secs. 8 and 9.] (*Bombay 1942 ; U.P. 1951*)

15. *What is a Central Bank ? What are its functions ? How does it differ from a commercial bank ?* [See Sec. 8.] (*P.U. 1956*)

16. *What is a Central Bank ? What are its functions ? Which of the functions are more important in a country like India ?* (*P.U. Inter 1961*)

17. *In what ways does the Central Bank of a country control credit ?*

18. *Distinguish between the functions of the Reserve Bank of India, and a bank such as the Punjab National Bank and the Central Co-operative Bank of a district.* [See Section 5, Section 4(*f*) and Section 8.]

19. *Give a brief account of the Reserve Bank of India and analyse its functions.* [See Sec. 9.]

20. *Briefly describe the functions of an Exchange Bank. Compare its functions with those of commercial banks.* [See Sec. 10.]

21. *Write short notes on* : (*a*) *Clearing House*, (*b*) *Bank Rate.* (*P.U. 1941*)

(*a*) Every bank receives every day cheques from their clients, which are sometimes drawn on other banks to be deposited in their accounts. To settle such accounts clearing houses have been set up, where representatives of all banks meet every day.]

[See Ch. XXI, Sec. 3.]

(*b*) The bank rate is the official minimum rate of discount at which the Central Bank discounts bills of exchange.] [See Sec. 8 (4) (i)]

22. *Write notes on* :—

(*a*) *'Fiduciary'*, (*b*) *'open market operations'*, *and* (*c*) *bank rate.*

[(*a*) Ch. XIX Sec. 10, Ch. XXII Sec. 8 (4) (i) and (ii).]

CHAPTER XXVIII

INTERNATIONAL TRADE

"Goods for Goods"

1. **What is International Trade?** Go to a general store near your house and if you put your question politely enough you will learn that many of the goods in stock were not made in India. They have come from all over the world. Tooth-pastes, brushes, wool, cups and plates, tinned butter, jam and what not, are almost all foreign. They have come all the way from U.K., U.S.A., Australia, Japan, and elsewhere. Practically the whole world has contributed its share to fulfil your needs. In return for these goods, India gives many goods such as oil-seeds, jute goods, manganese and tea, which she produces. *This exchange of goods between citizens of different nations is called International Trade.*

2. **International Trade Then and Now.** This kind of trade across national frontiers has grown in size with improved means of transport. Steamships and railways have thus been largely responsible for this increase in the volume of trade. The aeroplane is also helping in the good work.

With the introduction of mechanical transport, the world has become a small place. Goods are constantly transported from country to country. Freights are cheap. It does not take much time and money to send them from one end of the world to another.

Not only has trade increased in volume, but it has also changed in character. In the past trade was an adventure. The very names of goods traded in old times go to the head like wine, ivory, myrrh, silk and pearls. What do you say ? Don't your senses reel ? Doesn't your mouth water ? These and such like goods formed the stock in trade in old times. Today, on the other hand, we import and export pots and pans, bran, kerosene, rice, pig iron, and such other uninteresting things. Instead of exporting diamonds we might export coal and cement. Trade in cheap goods of this type has been made possible only through a fall in freight rates. The development of banking and credit has provided facilities for trade across the frontiers. As a result one can say positively that no country in the world, however huge and populous she may be, is self-sufficient—not even U.S.A. or China, blessed as they are with vast natural resources. None of them can stand alone without imports from other countries. Of India, too, the same is true. She too is not self-sufficient. Her prosperity and, one may say, even her very existence have been possible because of the food and machinery she is able to import.

3. **Need for International Trade.** When the earth was created, nature did not distribute her resources uniformly. Some

parts of the earth were blessed with some kinds of wealth and others with other kinds. Thus U.S.A. has plenty of coal, iron and oil. Australia has great agricultural and animal wealth. Norway and Sweden have forests and hydro-electric resources. England has iron. India has tea and manganese. In fact there are no such areas as have absolutely nothing. As a result almost all communities depend on others for a variety of a foodstuffs, minerals, raw materials or manufactured goods which they cannot produce themselves and in return for which they give what they have. Thus India sends out tea, coffee, hides and skins, cotton and jute goods, and manganese to other countries in return for machines, chemicals, rice, medicines and other goods she needs.

Similarly all people do not possess and cannot learn the technique of production at equal speed. Inborn ability varies with land and climate. This results in differences of 'know-how'. Thus Americans and Germans are clever engineers. The Japanese are good organisers. The Frenchman is an artist, while Englishman is a shipbuilder. International specialization naturally follows from these differences in industrial ability. As time passes, however, these differences tend to diminish and backward countries like India are forging ahead and learning things. All the same no nation has enough facilities for economical production of *all* the goods required by it today. These are the reasons why international trade has come into existence and why it persists.

4. **Differences between International Trade and Internal Trade.** Trade means exchange of goods. What difference then does it make to the theory of trade whether these goods are made in the same country or in different countries ? Why is a separate theory of international trade needed ? Well, domestic and foreign trade are really one and the same. They both imply exchange of goods between persons. They aim both at achieving increased production through division of labour.

There are, however, a number of things which make a difference between foreign trade and domestic trade. They are as under :—

(*i*) Labour and capital do not move as freely from one country to another as they do within the same country. "Man," declared Adam Smith, "is, of all forms of luggage, the most difficult to transport." Much more so when a foreign frontier has to be crossed. It looks strange, does it not, that man should be so immobile when he has legs of his own ? But besides legs, man has feelings and sentiments. He loves and he hates. He prefers a lower wage at home to a higher one abroad. A foreign country means to him a mere name on the map. To an average Indian, for instance, Canada is a distant land beyond the 'black water' whose laws are not known, whose language is strange and whose customs look queer to him. It would be very difficult to persuade him to migrate to Canada even if he is allowed to do so. For it is well-known that often people are barred from settling in another country by restrictions in the form of immigration laws. Hence differences in the cost of production cannot be removed by moving men and money. The result is the movement of goods. On the contrary, between regions within the

same political boundaries, people distribute themselves more or less according to opportunities. Real wages and standard of living tend to seek a common level though they are not wholly uniform. In India, which is a vast country, you find, for instance, the Bengali working in the Punjab, while the Punjabi is found almost everywhere, in Bombay, in Calcutta and even in distant Madras. As between nations, however, these differences continue to persist for wages and check population movements. Capital also does not move freely from one country to another. Capital is shy.

(*ii*) Secondly, each country has a different currency. India, for instance, has the rupee, U.S.A. the dollar, Germany the mark, Italy the lira, Spain the peso, Japan the yen, and so on. So buying and selling between nations give rise to complications absent in internal trade. Devaluation of the pound and the rupee in 1949 further complicated matters.

(*iii*) Trade between different countries is not free. Very often there are restrictions imposed by customs duties, exchanges restrictions, fixed quotas or other tariff barriers For example, our own country has imposed heavy duties on the import of motor cars, wines and liquors and other luxury goods.

(*iv*) Knowledge of other countries cannot be as exact and full as of one's own country. Differences in culture, language and religion stand in the way of free communication between different countries. On the other hand, within the borders of a country, labour and capital freely move about. These factors, too, make internal trade different from international trade.

(*v*) Then costs of transport and insurance also check free international trade. The greater the distance between the two countries the greater are these costs. Wars increase them still more.

Interdependence of External and Internal Trade. In spite of these differences, however, international and internal trade are interdependent. For example, restrictions imposed on imports of goods from some foreign countries would throw out of work people in those lands. Being out of the work their capacity to buy domestic goods, too, is decreased. They are compelled to seek new occupations. Thus the domestic trade of a nation cannot continue to flow in its accustomed channels if foreign trade should cease. The extent of dependence varies with different countries.

Prosperity and standards of living in the U.K. and Japan, for instance, almost wholly rest on foreign trade. This is not so much the case with U.S.S.R. and U.S.A. India is more akin to the latter class as she has plenty of natural resources which will enable her to stand on her legs ultimately.

5. **Basis of International Trade.** Differences in costs of production in two countries make exchange of goods profitable. Exchange will not be beneficial if goods are produced at the same cost. A lower cost of production gives an advantage to one country over the other, and *vice versa*. Now this advantage can be of one of the following three types :—

(*i*) Absolute Differences in Costs. Suppose a country has a monopoly in the production of a commodity. If other countries

need this commodity, the country producing it will have an absolute advantage over them. Thus India has almost a monopoly of manufactured jute (with the exception of Pakistan) and all other countries that need jute goods must buy them from India. Such absolute advantages are usually the result of differences in climate or other natural gifts.

(*ii*) **Equal Differences in Costs.** The differences in costs will be called equal, when a unit of productive power produces

in country A, 20 tooth-brushes or 1 md. of sugar,
and in country B, 10 tooth-brushes or $\frac{1}{2}$ md. of sugar.

In this case, both tooth-brushes and sugar will tend to be exported from country A to B. In payment for these, gold and silver will have to be constantly sent to A by B. This cannot go on for ever. Import or specie into A will raise prices there and export of goods into B will make things cheaper there. Thus the difference between the price levels of the two countries tends to be equalised and as a result the trade between them must cease. In country B, 20 tooth-brushes can be exchanged for no more than 1 maund of sugar. Trade in such circumstances will, therefore, either not start, or if it does, will come to a stop very soon. In both countries $\frac{1}{2}$ maund of sugar can be exchanged for 10 tooth-brushes. None of them gains by selling any of the two commodities.

(*iii*) **Comparative Differences in Costs.** It may be more profitable for a country to import some goods from another country even though she can produce them cheaper herself. This she will do when she finds that her labour and capital can achieve better results when employed in producing some other goods in which she enjoys a greater relative advantage in production. Thus England may import dairy products from Holland even though she can produce them cheaper herself, because she gains more by concentrating on steel goods and exporting them to Holland. Such a difference is called comparative difference and forms the basis of permanent international trade. In these circumstances, the trade between the two countries will not only start but will continue.

6. **Theory of Comparative Costs.** This theory is the basis of international trade. It explains that "it pays countries to specialize in the production of those goods in which they possess the greater comparative advantage or the least comparative disadvantage."

To take an example, we see that when a unit of productive power produces in country A, 20 tooth-brushes or 1 md. of sugar and in country B, 15 tooth-brushes or $\frac{1}{2}$ md. of sugar, country A has an advantage over country B in the production of both tooth-brushes and sugar. But she has a greater 'comparative advantage' in the production of sugar. Country B is at a disadvantage in both commodities but the 'comparative disadvantage' is less in case of tooth-brushes. Hence A will specialize in sugar and B in tooth-brushes. *This is the law of comparative costs.*

When it is applied to international trade, the theory states that *a country tends to specialize in the production of those articles in which it enjoys greater comparative advantage.* What is important is not

the cost of a commodity in A and its cost in B but the *ratio between the costs of the two commodities* in the two countries. "The difference in the comparative cost of producing the commodities exchanged is essential to, and sufficient for, the existence of international trade." (*Cairnes*). In the above case, the ratio of costs is different ; being—1 md. of sugar : 20 tooth-brushes in A, and 1 : 30 in B. Here *both* countries stand to gain from trade.

It is strange indeed to find a country importing a commodity from another even when she can herself produce it at a lower cost ! For instance, we find in actual life that though England can produce both dairy products and machinery cheaper than Denmark, yet she imports dairy products from Denmark and exports machinery. How is this paradox explained ? Well, like this :

A professor can probably black his own shoes better than his servant and can, of course, lecture far better. But his time is more profitably used with his books than with brush and polish. A doctor may be a better dispenser than his assistant but it pays him to examine patients and leave dispensing to his compounder. In the same way, England imports cheese because she *gains more by making machinery*. So it is not very strange after all !

Obviously every nation used its resources in such channels as will yield the best results. This is the real basis of all international trade. The theory has been, however, criticized. It is argued that a nation may sometimes not be aware of the advantage it possesses and, therefore, may not specialize in industries for which it possesses the greatest resources. But this can be only in the short period. In the long period, every nation will tend to divert its resources into channels where it expects to gain maximum returns and will try to secure all the profits it can from foreign trade.

All the same, in the world today it is seen that many countries are trying to attain self-sufficiency and to develop industries in which *they have not got a comparative advantage* over others. They feel it essential to develop key industries even if they have to make some sacrifice to do it. Protection is adopted and other kinds of restrictions on trade are used. These nations are keen on developing their key industries out of fear of war. Thus the cost of production is ignored in anticipation of an emergency.

7. Gain from International Trade. In the example in the above section, in countries A and B, production with equal units of labour and capital would be :

A—20 tooth-brushes and 1 md. of sugar.

B—15 tooth-brushes and $\frac{1}{2}$ md. of sugar.

Total production in A and B=35 tooth-brushes and $1\frac{1}{2}$ mds. of sugar.

But if they specialize, A will use both units of productive power for sugar and B for tooth-brushes.

A will thus produce with 2 units of productive power —

2 mds. of sugar.

B will produce with 2 units of productive power—

30 tooth-brushes.

Comparing the two positions, we find that with specialization, there is a gain of ½ md. of sugar and a loss of 5 tooth-brushes on the whole. Referring back to our equation we see that ½ md. of sugar is equal to 10 tooth-brushes in country A and 15 tooth-brushes in B. Deducting the loss of 5 tooth-brushes from this profit, there is a *net* gain of 5 to 10 tooth-brushes.

How this gain is distributed. This net gain will be normally shared by the two countries. In the above case, the rate of exchange of the two commodities will be somewhere between :

1 md. of sugar = 20 tooth-brushes, and

1 md. of sugar = 30 tooth-brushes.

We are sure of this because A will not accept less than 20 tooth-brushes for a md. of sugar and B will not offer more than 30 tooth-brushes for it, under any circumstances. In between these two limits, the exact rate of exchange will be decided by the *relative bargaining power* of A and B. The country, which is more anxious to secure the goods of the other, will be in a weaker bargaining position, and *vice versa*. In other words, the gain from international trade will be shared according to the reciprocal demand, *i.e., the elasticity of the demand of each country for the other's goods.* The ratio of exchange of demand will be anywhere between one maund of sugar to 21 to 29 tooth-brushes.

The gain is thus shared by both countries. But the bigger share goes to that country *which has an elastic demand for imports and whose exports have an inelastic demand.*

8. **Advantages of International Trade.** The advantages of international trade rest on international division of labour. There is world-wide specialization in industries which results in increased total production and other advantages which are as follows :—

(1) *The productive resources of the world are utilized to the best advantage.* Every country concentrates on the production of goods for which it is best fitted. There is economy of effort and a consequent fall in prices. Thus every country receives the highest return from its resources.

(2) *A country is able to consume goods which it cannot produce at all or only at an impossible high cost.* Thus consumers can enjoy a large variety of products. Commodities produced in the tropics find their way to the temperate zone, and *vice versa.* This provides greater economic welfare and a higher standard of living.

(3) *Violent price fluctuations are toned down.* As the area of market is enlarged by trade, the effects of the disturbing factors are spread over this large area and prices become more stable. If, at any time, the price of a commodity goes up abnormally, it can be imported from abroad and its price brought down.

(4) *Shortages in times of famine and scarcity can be met from imports.* Surplus produce can be sent out to needy countries. The world then tends to be united into one economic unit. Food scarcities in India and Europe are being relieved by imports of surplus foodgrains from U.S.A., Canada and Australia.

(5) *Countries economically backward but rich in unused resources develop their industries.* Japan provides a good example. India is also adopting the same methods. In the early stages, the industries of a backward country have to be protected but once they develop, free trade stimulates them still further.

(6) *Trade develops racial sympathies* and creates common interests. Man gains culturally and the cause of world peace is helped. Exchange of goods is accompanied by exchange of ideas. This promotes international understanding. Since a war is bound to interrupt international trade and put the people to loss, every effort is made to avoid it.

(7) *The existence of international trade promotes peace. It tends to kill jealousy.* No country, however big, can be self-sufficient. To achieve self-sufficiency, it will have to undertake expensive wars, conquer free areas and convert them into colonies. This is horrible. Free international trade supplies the essential needs of nations and thus checks their greed and desire to conquer.

9. **Disadvantages.** In theory no one can dispute the advantages of international trade. But in practice the other side of the picture cannot be ignored. Some countries, specially those which are at a lower stage of industrial development, have had a bitter experience of international trade. The disadvantages are :

(1) *The worst effect of foreign trade on backward countries is the destruction of their handicrafts and cottage industries.* In India such industries had reached a high stage of perfection. The flood of cheap British manufactures swept them before it. In recent times, Japan tried to crush our cotton industry by flooding Indian markets with cheap goods and protection had to be granted to save it. Industrially weak countries have to suffer like this.

(2) *The empire-builder follows the trader.* The foothold gained by traders is used to complete a country's political slavery. For example, the British came to India for trade and stayed to rule. A powerful country can easily find some excuse for attacking a weak country.

(3) *Dependence on foreign goods creates difficulties in time of war when the country is cut off by enemy action.* India had to face great trouble in getting ordinary articles like needles, tools and medicines during the war.

(4) *Extreme specialization, which makes a country depend on one or two industries only, is bad.* This is like putting all one's eggs in one basket. If a substitute is discovered or the industry otherwise suffers, the economic life of the people would be endangered.

(5) *Countries, which sell primary commodities and buy manufactured goods in return, are losers.* The standard of living of the people in such countries remains low. And the pity is that this state of affairs tends to persist. Foreign trade under such conditions leads more to discontent and unrest than to peace and goodwill. It is well-known that the feelings of the Indian people for the British before they left India were very bitter.

(6) *Foreign trade may completely exhaust a country's natural resources* like coal and oil which are irreplaceable. These goods are exported for the sake of profit. But the country suffers in the long run when their source is dried up completely.

(7) *Imports of harmful drugs and luxuries, as opium in China ruin the health of the nation.* For the use of such harmful articles, the blame must be put on international trade which brings them into the country.

(8) *Through foreign trade, the economic troubles of one country are communicated to others.* The economic disturbances in one country are transmitted to others and their economy is upset. For example, the collapse of American markets in 1929 resulted in world-wide depression.

(9) *Trade rivalry leads to war and friction.* Germany's desire to secure markets for her goods was the most important cause of the last two World Wars. Commercial competition often strains relations. Nearer home, India and Pakistan find it difficult to come to an understanding due, to some extent, to a clash of trade interest.

10. **Advantages and Disadvantages to India.** Even though India is a vast country, she lacks goods without which the standard of living would be at a low level. There are also many other types of goods, such as machines, medicines, etc., which India cannot produce herself. These she must import from U.K., Europe, U.S.A. and elsewhere.

She has a great deal of steel but she cannot convert it into precision tools and delicate machinery. She has to buy them from U.S.A. and U.K. to establish factories. Every two persons out of three in India are engaged in agriculture. But the produce per acre is so low that unless foodgrains and raw cotton are imported, many will starve and go naked. This will be true till India produces more per acre.

On the other side, there are a number of commodities like jute goods, tea, manganese, skins and hides, and oil-seeds which India is in a position to spare. She exports them and thus pays for her imports from abroad.

In modern times, India is importing large number of technicians to set up and organise factories in the country. Cultural contacts are of immense value. Indian philosophy has made a rich contribution to the culture and thought of the world.

Thus India gains economically and culturally from international trade.

Disadvantages to India. It is obvious that India suffered as a result of free international trade policy in the past. Her cottage industries were ruined in competition with England. The British Empire was established in India as a direct consequence of the advent of the English as traders. For a century or more, India was compelled to sell raw materials to England in exchange for manufactured goods. As a result, the standard of living in India was on a much lower level as compared with that in Britain. No doubt international trade can be very useful but it can also do much harm, when one of the count-

ries is politically under the other and is not as industrially advanced. But international trade has come to stay. It cannot now be abolished ; its evils should be minimised.

11. **Obstructions in the way of International Trade.** In spite of the great benefit of international trade, but in view of some admitted disadvantages, various nations have at one time or other had to give up the ideal of a wholly free trade. They had to adopt measures to restrict imports and exports. There are economically backward countries like India with potential resources. Owing to political circumstances, they had to export raw material for centuries and to import finished goods in exchange. Standards of living in such countries have always been low. This resulted in political unrest and discontent. Such reasons led such countries to impose restrictions upon trade with other nations. There are some other countries like Germany which put the ideal of national self-sufficiency before them. They argued that imports were bad, exports good. Imports make a country poor, exports make her rich. Such ideals have long gripped the minds of people. To secure this self-sufficiency, various devices were put into operation by different nations. They are as follows :

(*a*) *Clearing Agreements* are barter arrangements between two countries by which commodities are exchanged but no money is paid. For example, Pakistan might give India a million tons of wheat in return for some coal, textile and cement.

(*b*) *Quotas.* Quota regulations fix definite quantities of imports of various commodities from other countries. Sometimes these regulations are made more strict by prescribing conditions for licences to be secured before goods can be imported. At one time, according to Indo-Japanese agreement, quota of cloth to be imported by India was fixed. No more than this quota could be imported.

(*c*) *Import Boards* are appointed to regulate imports and to secure the home market against undue competition from abroad.

(*d*) *Exchange Control Departments* are established to control dealings in foreign exchange of some or all countries.

(*e*) *A Protective Tariff.* The above and other such devices are used to secure national sufficiency and to reserve the home market for home-made goods. But the most common device for the protection of home industry is the imposition of duties on cheap imports from abroad. If duties are levied for revenue duties only, it is called a *revenue tariff.* We discuss protection in detail below.

12. **Arrangements in Favour of Protection.** Protection aims at helping home industries against foreign competition. This is done either through duties on imported goods, or bounties to domestic producers. An import duty makes the foreign articles sell at higher prices and so help the home manufactures. This method is used with the following objectives :—

(1) *To help infant industries.* An infant has to be protected till it grows to manhood. 'Nurse the baby, feed the infant and free the adult' is a well-known maxim. Protective duties are 'crutches' to teach new manufacturers to walk.[1] The advantage thus gained is

[1] Fiscal Commission Report (India), 1922.

often greater than the cost paid by consumers in the shape of higher prices. India decided to protect some important industries on the recommendation of Fiscal Commission of 1921-22.

(2) *To keep 'money at home'.* When we purchase *swadeshi* goods, we are keeping purchasing power in our own country. It is possible that we are paying more for these goods than we may have to pay for foreign goods of the same quality, if allowed to come in freely. But we do not mind paying more and feel a glow of pride, when making a little sacrifice.

(3) *To get an inflow of gold.* When you send goods to others and close your doors to others' goods, you may have to be paid in gold.[1] This will be possible, however, only when your goods have an inelastic demand and the others either cannot or do not retaliate.

(4) *To develop 'key industries.'* Key industries are keys to further industrial expansion. Thes provide machines and materials for other industries. They have a strong case for protection if they need help. Chemical and metallurgical industries are of this type. They serve as a base for national economy. They are essential for the defence of the country in war and its prosperity in peace. This was a very strong argument to persuade the Government of India to protect India's heavy chemical industry.

(5) *To attain self-sufficiency.* When the government wants to make the country independent of foreign supplies, protection is necessary. This is sometimes considered necessary for reasons of defence. Adam Smith said, "Defence is better than opulence." Complete self-sufficiency, however, is impossible and even a partial one is costly. Therefore, self-sufficiency should be sought for only in essential industries.

(6) *To secure diversification of occupations.* The greater the number of openings for the people of a country, the better it is for their material progress. Too much reliance on any single industry is risky. To keep all one's eggs in one basket is not a wise policy. Therefore, it may be necessary to encourage some industries with the artificial aid of protection.

(7) *To prevent dumping of foreign goods.* When a foreign country plans to crush home industry by selling goods at a price even below the cost of production, it is a case of dumping. Such a supply of cheap goods might be welcome if it were permanent; but it is usually temporary. It is done to kill competition and then to make up all losses by charging higher prices. Anti-dumping duties are, therefore, justified to save the home industry.

(8) *To create employment.* Protection helps to develop industries and creates more employment. There is no doubt that the development of sugar and other Indian industries under protection provided a large volume of employment.

13. **Arguments against Protection.** Protection, however, when once given, cannot be easily withdrawn. 'Infants' refuse to admit that they are grown up. They start kicking when it is

1. The U.S.A. amassed the bulk of the world's gold in this way after the war of 1914-18. She still has 60% of it.

attempted to take away protection. It creates strong vested interests. The industries concerned think more of keeping the protection than of improving their efficiency. They try all sorts of methods, including bribes and threats to persuade the government to allow them to keep on enjoying protection, even though it may have become a heavy burden on the consumers.

Protection is bad from another angle too. It invites retaliation from abroad and creates enemies. Besides, it sacrifices the advantages to be gained from international division of labour and thereby makes the world poorer. Further, consumers and unprotected industries suffer. The protected ones do not try to improve themselves. They become slack. Protection serves as an opiate and sends them to sleep. In view of these drawbacks, protection should be given only to those industries which cannot do without it or those which are expected to prosper quickly with its help. It should also be given in moderate doses, and for a temporary period only.

14. **Protection in India.** A special type of protection was introduced in India known as *discriminating protection*. Discriminating protection means that *all* industries should not be protected. A proper selection should be made and only those industries be protected which have potential resources and are needed for the prosperity of the country. Growing grapes in sandy Hissar (Punjab) would be very costly and should not be attempted by means of protection. The cost would be too heavy.

This kind of selective protection has been styled 'Discriminating Protection' in India. It was granted to a number of industries in India after 1922. These industries had to satisfy three main conditions (known as the triple formula) before they were considered eligible for help. These conditions were :

(1) The industry must possess natural advantages and a large home market. In other words, it should have an abundant supply of raw materials available in the country. Large supplies of skilled labour should also be available inside the country.

(2) The industry must be one which was not likely to develop without protection, or develop as rapidly as desired.

(3) Ultimately the industry should be able to face world competition, and stand on its own legs.

There were some other subsidiary conditions too. Indian opinion was very critical of all these conditions. It was rightly considered that hard and fast rules should not be laid down regarding the granting of protection to an industry. These conditions were too rigid and few industries in the world could satisfy such rigorous tests. The 'triple formula' was not only very harsh, but it was also incompatible. If an industry had natural advantages (first condition), it will be able to grow without protection and will thus not fulfil the second condition.

However, it cannot be denied that this policy, halting though it was, enabled India to develop some industries and save others. Steel, cotton, sugar and paper industries owe their development to this policy.

Developmental Protection. After the Partition in 1947, the policy of discriminating protection was discarded in favour of a policy of liberal and developmental protection. This policy was laid down by the Fiscal Commission of 1949-50 According to this Commission, protection should be granted to reduce unemployment in the country, to utilise natural resources, to raise standards, to improve agriculture, and to develop cottage as well as large-scale industries. The lack of raw materials for an industry should not stand in the way of help being given to it, provided the industry was sufficiently important and possessed other economic advantages such as an internal market, labour supply, etc. Any industry which needs development, in national interest, should receive protection.

Thus the concept of protection has wholly changed in India and a national policy is being pursued in this connection.

WHAT WE GATHER FROM THIS CHAPTER

What is International Trade ? Exchange of goods between citizens of different nations is called International Trade.

Its Character. Mechanization of transport has increased it in volume and changed its character. No country is self-sufficient. Cheap things are exchanged today.

Its Need. All countries are not equally blessed with resources. They buy what they lack and sell what they can spare. All people are not equally good technicians. They have to learn from one another.

Difference between External Trade and Internal Trade :

(*i*) Labour and capital are not so mobile between different countries as within the same country. This is due to sentiment and legal restrictions.

(*ii*) Each country has a different currency system.

(*iii*) Laws and government policy are everywhere different.

(*iv*) Knowledge of other countries cannot be as perfect as one's own.

(*v*) Transport and insurance costs make a great difference.

Interdependence of External and Internal Trade. People are thrown out of work on account of restrictions on foreign trade, domestic production suffers and internal trade decreases.

Basis of International Trade. International trade takes place if the cost of production of goods exchanged differs in the two countries. The differences in cost may be of three kinds :—

(*i*) *Absolute difference,* when an article cannot be produced anywhere else or only as a prohibitive cost.

(*ii*) *Equal difference,* when a country is as well-placed in the production of two articles as another country.

(*iii*) *Comparative difference,* when one country has a greater comparative advantage over another in the production of one article and only a lesser advantage in another article. This is the real basis of international trade.

The law of comparative costs explains a fact which otherwise appears a paradox, *viz.*, that a country may import from outside an article which it can produce cheaper by itself. This is so because it enjoys a greater advantage in the making of another article.

Theory of Comparative Cost. The theory of comparative costs states that a country tends to specialise in the production of those articles in which it enjoys a greater comparative advantage or lesser comparative disadvantage.

Gain from International Trade. Where there is a difference in comparative costs, there is a net gain from trade in the form of an increase in the total amount of wealth produced. This gain is shared by the two trading countries. The share of each is decided by the relative elasticity of their demands for each other's goods.

Advantages of International Trade :

(1) Best use of the world's resources is made.
(2) Countries can get for consumption articles which they themselves cannot produce.
(3) A relatively greater stability in prices is brought about.
(4) Shortage can be met by imports.
(5) Economically backward or new countries can develop themselves by importing equipment and raw materials.
(6) Mutual sympathies and common interests are created.

Advantages to India from International Trade. In spite of being a vast country, India cannot supply all her needs herself. She imports machinery foodgrains and raw cotton, and pays for them, by exporting jute goods, tea, manganese, skins and hides and oil-seeds.

Disadvantages :

(1) Harmful effect on home industries which are ruined by composition.
(2) Trade is sometimes followed by political subjection.
(3) Over-dependence on foreign supplies is dangerous.
(4) Too much specialization in any one industry is bad.
(5) Countries specializing in producing raw materials are losers.
(6) Foreign enterprise may exhaust a country's natural resources.
(7) Imports of harmful luxuries affect the health of the people.
(8) Economic troubles of other countries affect the home country.
(9) Political rivalry grows.

Disadvantages of International Trade to India. Free trade in the past ruined India's cottage industries. Competition with England compelled India to export raw materials and to import manufactured goods.

Obstruction in the way of Foreign Trade. Every country attempts to gain the benefits of international trade and to avoid its bad effects. Hence certain restrictions are placed on it. This is called 'protection' as against 'free trade' or unchecked foreign trade. Various devices like clearing agreements, quotas, import licences, exchange control and protective duties are used for this purpose. Of these, protection is the most important.

Protection is the help given to home industries through taxes on imported goods or through bounties. The following arguments are given to uphold protection :—

(1) Helps infant industries.
(2) Keeps mony at home.
(3) Secures an inflow of gold.
(4) Develops key industries.
(5) Gives national self-sufficiency.
(6) Diversifies occupations.
(7) Helps to face dumping of foreign good.
(8) Creates employment.

Arguments Against Protection. Protection when once given, however, results in the creation of vested interests, and cannot be withdrawn easily. It invites retaliation. Prices rise, consumers suffer, manufactures become lazy. It leads to corruption and bribery.

Discriminating Protection. This type of protection was recommended by a Fiscal Commission in 1922. According to this policy only selected indust-

ries should be protected. An expert body, called Tariff Board, should be appointed to select such industries. They should have natural advantages, should not be able to grow without protection and should ultimately be able to stand on their own legs. These conditions were too rigid. The policy did not prove satisfactory in bringing about rapid industrial development in India. This policy was changed in 1950 according to the recommendation of a new Fiscal Commission. The new policy was more positive, liberal and helpful.

CAN YOU ANSWER THE FOLLOWING QUESTIONS ?

1. Write a brief note on the theory of International Trade. How does it differ from Internal Trade ? *(P.U. Pre-Univ. 1962)*

Or,

In what respects does trade between Calcutta and Bombay differ from trade between Calcutta and Rangoon ?

2. What is the necessity of separate theory of international trade ? Distinguish home trade from foreign trade. [See Sec. 4] *(C.U. B.Com. 1933)*

3. Discuss fully the law of comparative costs as applied to foreign trade. *(J. & K. 1954 ; C.U. 1946 ; All. 1949 ; Nas. 1944 ; Delhi 1940 ; Mad. 1940 ; P.U. 1956 Suppl.)*

Or,

Study the law of comparative costs. Can international trade take place outside the law ? [See Sec. 6.] *(P.U. 1955)*

4. Why should a country import from another country an article that she can produce at a lesser cost ? [See Sec. 6.]

5. Discuss the basis of international trade. (C.U. 1943 ; C.U. B.Com. 1944) Examine the theory of international value. *(C.U. 1946 ; Agra 1934 ; All. 1931 ; Dacca 1934 ; Delhi 1947; Nag. 1949, 35 ; Mad. 1938 ; Punjab 1954)*

[See Secs. 5 and 6.]

6. How is the gain from international trade shared ? Say also how the exchange rate of commodities is settled. [See Sec. 7.]

7. Give advantages and disadvantages of international trade. *(P.U. 1959 Suppl.)*

Or,

Examine fully the advantages of international trade. Give some illustrations. [See Sec. 8.] *(Patna 1954)*

8. What is International Trade ? What are its advantages and disadvantages ? Illustrate your answer with Indian examples. *(Pb. Univ. H.S. 1962)*

9. Explain the possible bad effects of international trade to a country. Has India suffered any ? On what grounds would it be desirable to impose restrictions on the freedom of international trade ?

[See Secs. 10 and 11.] *(C.U. 1942 ; Dacca 1944; Mad. 1937)*

10. Describe briefly what India gains from foreign trade, and what are the possible losses which she suffered from it in the past ? [See Secs. 9 & 11.]

11. What is the basis of international trade ? What do you expect—a decline or a rise in our international trade after our country becomes economically developed through a series of successful Five-Year Plans ? Give reasons for your answer. What are the benefits of international trade ? *(P.U. 1960)*

[See Secs. 5, 8 and 10.]

12. Do you stand for 'protection' or 'free trade' ? Give reasons for your answer. *(C.U. 1947 ; Agra 1936 ; All. 1934 ; Nag. 1941 ; Punjab 1941)*

[See Secs. 13 and 14.]

13. Explain :

1. Dumping. 2. Key Industries. 3. Trade Cycles.

[1. See Sec. 13 (7). 2. Sec. 13, (4). 3. Trade cycles are booms in trade followed regularly by trade depressions, high prices pursued by low prices, optimism and pessimism racing each other in a vicious circle.]

14. Discuss on what grounds it may be considered desirable to impose restrictions on the freedom of international trade. (*C.U. 1942 ; C.U. B.Com. 1932 ; Dacca 1944, 43, 41 ; Mad. 1937*)

[See Sec. 12.]

15. One of the advantages claimed for a system of protective duties is that "it keeps more money in circulation at home. Discuss. (*C.U. B.Com. 1923*)

[See Sec. 13 (2).]

16. Examine the relative advantages of Free Trade and Protection in an economicalty backward country. [See Secs. 13 and 14] (*J. & K. 1956*)

17. What is meant by protection ? Discuss briefly the arguments for and against protection. (*P.U. H.S. 1961 Suppl.*)

[See Secs. 13 and 14.]

18. Examine the case for Protection. When does protection become undesirable ? (*Pb. Univ. H.S. 1962 Suppl.*)

19. Distinguish between (a) Balance of Trade and Balance of Account. (*P.U. 1941*)

(*b*) *Protective Tariff and Revenue Tariff.* (*U.P. 1942, 44*)

[(*a*) Balance of trade includes only goods exported and goods imported, while balance of account includes services like shipping, insurance and banking besides goods.

(b) By protective tariff we mean custom duties imposed for the purpose of giving protection to home industries, while in the case of revenue tariff, duties are levied purely for the sake of revenue.]

CHAPTER XXIX

FOREIGN EXCHANGE

"Changing one currency into another"

1. **What is the Foreign Exchange ?** In our own town, we usually pay for our purchases in coins or notes. Sometimes, if the deal is a bit large, we pay through a cheque on some local bank. If we have to pay money in a distant place like Bombay, we may use the services of a post office for sending money order or issue a cheque or send a bank draft. But if we have to make payment, say in New York, the matter becomes complicated. The American will not accept our rupees. And we have no dollars and cents to pay him. We shall have to call on our banker to change our rupees into dollars and remit them to New York. This change of rupees into dollars (or any other currency), and *vice versa*, is called Foreign Exchange. Trade with foreign countries gives rise to this problem. If there had been no international trade, there would have been no need for foreign exchange.

2. **Modes of Foreign Payments.** Let us suppose that an importer of motor-cars in India has to pay their price to the American exporter. The American, in other words, has a claim to Indian money. The payment may be made in one of the following ways :—

(*a*) *Through bill of exchange*, which may be a sight bill or a time bill. If it is the former, it is payable on demand ; and if the latter, a definite period is allowed before it becomes payable. When a time bill has been accepted by the foreign debtor, it is sent back to the drawer who can obtain cash for it by discounting it in his country. In this way, a bill helps in the settlement of debts.

(*b*) *Through banker's draft.* A bank draft helps in moving funds from one place to another not only within a country but beyond too. For instance, a Delhi bookseller purchases a bank draft and sends it to England. It is presented to the bank's branch or agent in England, cashed in pounds, and books sent to India.

(*c*) *Through cable or telegraphic transfer.* They are like telegraph money orders. This method is used for an urgent payment and a higher commission is charged for it.

These three—bills, banker's draft and cable transfers in favour of a country or against it—appear as demand and supply in exchange markets. Let us suppose there are only two trading countries, India and U.S.A. There would be bills and drafts in favour of India for her exports to U.S.A. and those against her for her imports at any time. If the bills in favour of India exceed in value those drawn against her, there will be greater demand for rupees than

their supply. The value of the rupee will rise in terms of the dollar, *i.e.*, the rate of exchange will move in favour of India. In opposite circumstances, the value of the rupee will fall.

There are, however, not two countries but many. Every country has a different currency and there is no common medium of exchange. Hence only gold or silver can be acceptable to all, but actually gold and silver too are like other goods. All goods and services imported, including gold and silver, have to balance against those exported over a long period. This balancing is done by bills of exchange. It is this feature which distinguishes international trade from home trade. All imports, including goods and services, have to be met by exports. Hence *international trade is rightly said to be a form of barter.*

3. **Balance of Trade.** A comparison of the total imports and exports of a country is its balance of trade. The balance is regarded as 'favourable' when the value of exported goods exceeds that of imported goods. It is 'unfavourable' or 'adverse' when imports out-value exports. In the Middle Ages, it was thought that a favourable balance was the only way to make a country "rich" as it brought in gold and silver from outside. Now, however, this idea has been discarded and it is believed that *in the long run exports and imports, including services of all kinds, should balance and 'that exports pay for imports'.*

If, however, an unfavourable balance of trade persists for a long time and is very large in amount, gold shall have to be exported. In that case, steps shall have to be taken to set it right. It should, however, be noted that the 'visible' unfavourable balance of trade may be corrected by the export of 'invisible' items which do not enter into the account books. These are discussed in the next section.

These terms 'favourable' and 'unfavourable' are only technical terms. Thus the 'favourable' balance may not really be favourable and make the country rich and prosperous. For a long time under the British regime, India had a favourable balance ; still India was poor. England always had an unfavourable balance but she has always been prosperous. It is not the balance of trade but balance of payments which throws light on the economic condition of a country.

4. **Balance of Payments : Visible and Invisible Items.** The balance of trade includes only the visible items in foreign trade. They are material goods exported and imported. Only these are entered in the port registers maintained by the customs authorities. But there are a large number of other items which fall outside and are called 'invisible'. The balance of payments includes all 'visible' and 'invisible' items. The invisible items are :—

(*a*) *Services.* India uses a good deal of foreign banking, shipping and insurance services. She does not have enough of her own ships, insurance companies and exchange banks. Hence foreign agencies, like Lloyds Bank provide these services. India has to pay for all such services.

(*b*) *Tourists' expenses.* When Indian students and tourists purchase goods and services in Europe, it is like importing these goods and services. The only difference is that instead of goods coming to the consumers, the consumers have gone to them. They have to be paid for in goods exported from India. In the case of Indian students receiving education abroad, India is importing education as it were and has to pay for it.

(*c*) *Interest on borrowed capital.* The services of capital have to be paid for by the borrowing country. An investment made abroad is an export item and remains so till withdrawn. Ultimately all loans borrowed in foreign money markets have to be paid back and adjusted through exports.

(*d*) There are various minor items in addition, like *gifts, donations and money remitted home* by foreign settlers.

All these invisible items produce exactly the same effect on the balance of trade as the export and import of commodities. When they are added to the balance of accounts, we have a complete list of all the items which have to be paid for by trading countries. The sum-total is called the *balance of payments.*

India's balance of trade in the time of the British was always favourable as it had to cover the price of services performed for and loans borrowed by India. The actual balance of payment was, therefore, not so favourable. After the war was over, and more so after the partition, India's balance of payment steadily grew unfavourable. The deficit was much greater with dollar countries than with sterling countries. U.K. was also in a similar situation. Hence U.K. had to devalue her currency in terms of the dollar by 30·5% in September 1949. India followed suit, while Pakistan did not do so. As a result of this devaluation, India's balance of payments improved. Thus, while there was an overall deficit of Rs. 219 crores in 1948-49, it was only Rs. 11·3 crores in 1951-52.

It is not very harmful if the balance of trade is unfavourable now and then. *But the balance of payment must balance over a long period* just as a man's income and expenses must be equal. If he is spending more than he is earning, he must borrow. And if he is earning more, he must be saving something. He may keep it in a bank ,or hoard it or lend it. Thus if his saving and borrowing are included in his budget, it will balance. Similar is the case with countries. A country may be collecting a balance in its favour or against itself in another country. But over a sufficiently long period, its balance of payments must show the two sides to be exactly equal if it does not want to become bankrupt. That is why it is said "*exports pay for imports*" or in the long run exports and imports must be equal.

This is why India, U.K. and other Commonwealth countries had to devalue their currencies in terms of the dollar. It was seen that deficits in their trade with dollar countries were too heavy.

India's current balance of payments in April-September 1960-61* was as follows :—

*Preliminary.

	Crores of rupees
Imports (Private and Government)	538·7
Exports	—299·3
Trade Balance	239·4
Official Donations	26·8
Other Invisibles (net)	34·8
Current Balance of Payments (net)	—177·8

5. **Correcting Disequilibrium in the Balance of Payments.** When the visible and invisible exports of a country are less than *all* her imports over a long period and the difference is big, steps have to be taken to bridge the gap. A number of methods are used. They are :—

(1) *Imports are controlled through licences* or import duties or import quotas while *exports are encouraged* through a grant of bounties, or through a reduction in wages and costs of production. All these various steps have been adopted in India during the last few years.

(2) *Deflation* is another method. Under this method total money income in the economy is sought to be reduced, so that the aggregate demand in the country falls. As a result the people tend to import less and their demand for home produced goods too becomes less releasing more of them for exports. Owing to fall in aggregate demand, prices also fall, so that that country becomes a good market to buy from and a bad market to sell in. In this way imports get discouraged and exports are stimulated, thus correcting the adverse balance of payments.

But deflation is not a healthy method, because the reduction of money incomes hits business, trade and industry hard and brings about depression and unemployment.

(3) *Exchange control.* All the foreign currency earned through export of goods is put in a pool and is rationed out to importers according to the needs of the country. This keeps imports within the desired limit of exports. A dollar pool was created for all sterling countries during and after the war. All dollars earned were put in it and doled out on the basis of the needs of every country. In India all foreign exchange earned by Indian exports is acquired by the Reserve Bank and then distributed among licensed importers.

(4) *Lastly there is devaluation.* The devalued currency falls in value against foreign currencies. The foreigners have to pay less in terms of the devalued currency. Hence they are induced to import more from such a country. Thus her imports decrease and exports increase and the balance of payments is corrected. As already mentioned, India following U.K. devalued her currency in terms of the dollar in September 1949. Her trade balance had been very unfavourable. There used to be a big gap between her exports and imports. After the devaluation, however, her balance of trade was set right.

6. **Rate of Exchange.** The rate at which a unit of one country exchanges for another is the rate of exchange between them.

Tho Indian rupee exchanges for 1s. 6d. This is our rate of exchange with England.

Every country has a currency different from others. There is no common medium of exchange. It is this feature that distinguishes international from domestic trade. When the imports and exports of a country are equal, the demand for foreign currency and its supply, or conversely, the supply of home currency and the demand for it will be equal. *The exchange will be at par.* If the supply of foreign money is greater than the demand, it will fall *below par* and the home money will appreciate. If, on the other hand, the home currency is in greater supply there will be keener demand for the foreign currency. The latter will appreciate in value and rise *above par.*

Let us see how the rate of exchange is determined under different monetary systems :

(*a*) *Under Gold Standard.* When two trading countries are both on the gold standard, their currencies can be converted into gold at fixed rate. The exchange ratio between two such currencies will not depart much from the mint par and will move between the two points of export and import of gold. These points are also called "*Specie Points*" or "*Gold Points*". These points are discovered by adding or subtracting the cost of transporting gold from the *mint par.* If the rate of exchange goes beyond these points, gold will either be imported or exported, The *mint par* of exchange is discovered by comparing the real gold contents of the two currencies.

(*b*) *A Gold Standard and a Silver Standard.* Suppose there are two countries having a gold standard, say England and the other has a silver standard, say China. How will the rate of exchange between the English pound and Chinese dollar be determined ? In order to clear their dues, the Chinese importers wish to buy the English currency which is gold with the Chinese dollars which is silver. Hence the rate in Peking will depend on the price of gold in terms of silver. In the same manner, in London the rate of exchange will depend on the price of silver in terms of gold.

(*c*) *Paper Currencies—Purchasing Power Parity.* No country today is rich enough to have a free gold standard—not even the U.S.A. All countries have paper currencies. The exchange situation is difficult in such cases. It becomes complex when either both the countries have inconvertible paper currencies or one is on a gold standard and the other on an inconvertible paper standard. In such circumstances *the ratio of exchange between the two currencies is determined by their respective purchasing powers.*

Suppose a bundle of commodities can be purchased in India for Rs. 15 and a similar group of commodities can be purchased in England for £1. Obviously the rate of exchange will be £1=Rs. 15. for the purchasing power of £1 is equal to the purchasing power of Rs. 15. Such a rate is not a fixed par. It fluctuates with changes in the purchasing power of the respective currencies as measured by changes in the index number of price levels. This theory is called Purchasing Power Parity Theory.

The actual rates, however, do not necessarily correspond to the respective purchasing powers of the two currencies. This theory is only a statement of a tendency. To sum up : "*At any particular time, the value of the unit of currency in terms of another is determined by the market conditions of demand and supply ; in the long run that value is determined by the relative values of the two currencies as indicated by their relative purchasing power over goods and services.*

According to the new Theory it is the balance of payments which determines the rate of exchange.

(*d*) Sometimes the rate of exchange is fixed by an agreement between two countries at any convenient point and *both countries agree to maintain this ratio by artificial devices.* This is called "*exchange pegging*". The Indian rupee, for instance, was pegged at 1*s.* 6*d.* in terms of sterling till 1947 and the ratio maintained artificially by the Reserve Bank of India.

WHAT WE GATHER FROM THIS CHAPTER

What is Foreign Exchange ? When a person purchases an article produced by a foreigner, the foreigner has to be paid in his currency which is different from the buyer's. This change of currencies is called foreign exchange.

How to Pay for Foreign Purchases. The payment may be made through a *Bill of Exchange*—(which may be a sight bill or a time bill) or through banker's drafts or cable transfers (called T. Ts). These documents drawn in favour of and against the traders of a country are the demand and supply counters in the foreign exchange market.

Balance of Trade is a comparison of the total value of imports and exports. It is '*favourable*' when exports are greater and '*unfavourable*' when they are smaller than imports.

Balance of Payments. There are certain other items also, however, like bank insurance and shipping services, expenses of tourists and students abroad and interest on borrowed capital which are known as '*invisible items*'. These also have to be paid for. When these are added to the visible items of the balance of trade, we get the *balance of payments.*

Why should Foreign Trade Balance ? The balance of payments must balance over a long period in the same way as an individual's income and expenditure must balance. Otherwise, if the balance is unfavourable over many years, the country loses its good name and becomes bankrupt.

How Disequilibrium in Trade can be Corrected :

(*i*) By controlling imports and stimulating exports.

(*ii*) By reducing prices and wages through deflation or otherwise.

(*iii*) By exchange control.

(*iv*) By devaluation.

How the Exchange Rate is Settled :

(*a*) *Under Gold Standard.* If the two countries have gold coins, the rate of exchange will depend upon the proportion of fine metal contained in each of them. This is called mint par of exchange. If at any time, the actual rate is different from the mint par by a margin bigger than the cost of packing and transporting metal, gold will flow from one country to the other. Packing and transport costs added to and subtracted from the mint par give us '*Gold points*' or '*specie points*' or '*Gold Import and Export Points*'.

(*b*) Between gold and silver standard countries, it is determined by the price of gold in terms of silver, and *vice versa.*

(*c*) *Paper Currencies.* In this case, the relative purchasing power of both the currencies determines the rate of exchange. If one unit of the country's currency purchases as many goods and services as four of another's the exchange rate will be 1 : 4. This is known as *purchasing power parity.* If at any time, the actual rate differs from this, one side of the balance of payments

becomes very heavy. This happens because purchasing in one country and selling in the other becomes profitable.

(*d*) By mutual agreement.

CAN YOU ANSWER THESE QUESTIONS ?

1. *What do you understand by 'foreign exchange'* ?

[Foreign exchange may denote—

(*a*) Claims to foreign money, or

(*b*) The bill market where bills of exchange drawn in international trade are bought and sold, or

(*c*) The rate of exchange of different currencies] [See Sec. 1]

2. *"International trade is a kind of barter." Discuss* (*P.U. 1940, 42*)
[See Sec. 2.]

3. *"Imports and exports tend to be equal." Discuss.*
(*C.U. 1940 ; C.U. B. Com. 1946 ; Dacca 1942; Mad. 1946 ; Agra 1946 ; Delhi 1939*)
[See Secs. 2 and 3.]

4. *What items enter a country's balance of payments ? Give three examples of visible and invisible imports and three of visible export and invisible export.*

5. *What are the methods open to a country to correct an adverse balance of payments ?*

6. *In what sense is it true to say that imports in the long run pay for exports ? "Our imports are paid for in the long run by our exports." Discuss. "Imports and exports tend to be equal."*
(*C.U. 1936, 46 ; C.U. B.Com. 1946 ; Dacca 1942 ; Mad. 1946 ; Agra 1936 ; Delhi 1939*)
[See Secs. 3, 4 & 5.]

7. *Distingush clearly between :*

(*i*) *Equation of Exchange and Par of Exchange.* (*P.U. 1940*)

(*ii*) *Balance of trade and balance of accounts.* (*P.U. 1951, 55*)

(*iii*) *Invisible and visible items of exchange.*

(*iv*) *Favourable balance of trade and unfavourable balance of trade.*

[Equation of exchange refers to the formula in the Quantity Theory of Money

$$P=\frac{MV+M'V'}{T}$$

'Par' denotes mint par of exchange. See Sec. 2. (*ii*) and (*iii*) See Sec. 3 and 4.]

8. *A student in London writes to his father in Delhi to send him Rs. 100. Mention the ways in which it can be done.*
[Banker's draft, telegraphic transfer, gold bullion.]

9. *What is meant by mint par of exchange ? What are the limits within which the rate of exchange can normally fluctuate under gold standard ?*
[See Sec. 6.]

10. *What do you mean by specie points ? Explain how they are arrived at.* [See Sec. 6.]

11. *Write notes on :*

(*i*) *Gold or Specie Points.*

(*ii*) *Purchasing Power Parity.* [See Sec. 6.]

CHAPTER XXX

PUBLIC FINANCE

"The Story of What People Pay and How Governments Spend"

1. **Definition of Public Finance.** Whatever the type of Government, however simple it may be, it has to perform some functions. To carry out these functions it needs funds, much more now than in the past. Every one has to contribute something. This is why even the poorest feels the presence of Government. He has to pay taxes ! In disgust he groans, "These taxes ! Oh !" and wonders what the Government does with crores and crores of rupees it collects. Well, we shall tell you here why the Government takes money, how it gets money and where it spends money. This is the work of the Department of Public Finance.

2. **Importance of Public Finance.** Man cannot live alone. He never did so. To live in society he must arrive at an understanding with his fellowmen regarding their mutual relationship and the type of Government they want. In early days, the duties entrusted to Government were few and simple. They were mainly defence against invaders from outside and maintenance of order at home. As time has passed these duties have grown ; till today we find that there is no activity in which Government does not take a hand. Governments have come to regulate what cloth we wear, what food we eat, what books we read, and so on. They lay down where we purchase our necessaries. They control the conditions under which we produce goods. They take from the rich and give to the poor.

The objective of government has come to be economic welfare of the largest numbers. Public finance is being viewed more and more as an instrument of social justice. The modern Governments use this weapon extensively for reducing inequalities of wealth, income and opportunities. Public finance is no longer a mere instrument for raising State revenues. You will thus see that no account of the economic organisation of a country can be complete without a description of the part played by Government, in the production, description and consumption of wealth in it. This is why the study. of Public Finance has assumed great importance in modern times.

3. **Functions of the State.** You have now an idea of the many functions the State has to perform. They are really so varied that one centralized authority cannot possibly cope with them. Hence they are distributed among various authorities—Central, Provincial and Local.

There have always been different views regarding the field of State functions. *On the one extreme* are people who want Government not to interfere with the ordinary life of the people and to content itself with acting as a 'policeman'—a mere protector of

human life and property from external invasion and internal disturbance. *At the other end* are the Communists. They want the State not only to run trade and industry but also control births and nurse the babies. Between these two extremes there is a wider range of opinions.

One thing is, however, certain and that is that as time passes the field of State activity is growing wider. The functions of the State have increased manifold. "Some of them—as the preservation of order, the administration of justice and the defence of the country against attack—may be regarded as 'necessaries' ; some like a highly developed educational system may be regarded as "comforts" ; while others such as stately buildings, or costly display on ceremonial occasions may almost be looked upon as 'luxuries'."—(*Penson*)

The functions of the State may then be classified as under :—

(*i*) *Protective, i.e.*, keeping life and property secure against dangers with the help of the police, the army and the law courts ;

(*ii*) '*Developmental*', *e.g.*, education and public health ;

(*iii*) '*Commercial*', *e.g.*, forests, railways and post offices ; and

(*iv*) *Public Utility Services* like the supply of water and electricity, roads, gardens and museums.

These tasks have grown step by step. A century ago much less was done by the State for public benefit than at present. Interference with the life of the individual is increasing. As a consequence, these activities have had to be split up among Central, Provincial and Local authorities. The more extensive these tasks are, the more is the money required to do them efficiently.

4. **Comparison Between Public and Private Finance.** Before we study Public Finance, we may well compare it with individual or private finance. Individuals and States are similar in that they both need resources. Both have to secure maximum results from their resources. Both attempt to get the best out of all items of expenditure.

There are, however, some important points of difference between private and public finance. They are :

(1) An individual's income determines his expenditure while a State's proposed expenditure determines its income. A person cuts his coat, as they say, according to the cloth he has. A Government, on the other hand, arranges for cloth according to the length of the coat it proposes to have. Thus the State plans its needs first and then produces to find funds to meet them. An individual knows his income and he has to plan out his expenditure accordingly. An individual adjusts his expenditure to his income, whereas the State adjusts its income to its expenditure.

(2) A public authority can vary the amount of its income and expenditure—within limits of course but more easily than an individual. An individual cannot easily double his income or halve his expenses even if he would be better off that way. But this is not so difficult in the case of Governments.

(3) A public authority usually does not discount the future at as high a rate as an individual. The reason is obvious. The life of a man is counted in years and his foresight is limited. A State is supposed to live for ever. So future satisfactions do not appear so small against present utilities to a State as they do to an individual. He always prefers a bird in hand to two in the bush even though the two in the bush may be fairly certain tomorrow.

(4) A wise man is he who, after meeting his needs, saves something to lay by. Not so with a State. A State should not ordinarily try to hoard but should repay to the people in services all that it receives in taxes. A heavily surplus budget is for this reason as bad and perhaps even worse than a heavily deficit one. The deficit budget may propose to incur the deficit for promotion of mass welfare while the surplus budget is only an extra burden on the payer.

(5) There is no fixed period of time over which an individual balances his budget. State budgets are generally made for one year. But the income and expenditure of an individual are continuous and cover the whole period of his life.

(6) The individual finance is kept a secret whereas the State finance is made public. The budget is published and every citizen is welcome to scrutinize it and comment on it. An individual will not let anybody have a peep into his financial position.

(7) A State can raise an internal loan ; an individual cannot. Nobody can borrow from himself. But a State can borrow from its own citizens.

5. **Sources of Government Finance.** We have seen that the functions of modern Governments are very many and very important and call for heavy expenditure. To meet expenditure Governments need an equally large income. There are four main sources from which this income is obtained. They are :

(1) Taxes direct and indirect.

(2) Prices in earnings from commercial and industrial State undertakings.

(3) Fees and assessments.

(4) Loans.

In addition to these there are some minor sources such as fines and penalties, reparations and indemnities, tributes and gifts. We discuss these sources below :—

Taxes. Taxes are the most important source of State revenue today. **A tax has been defined as a "compulsory contribution of the wealth of a person or a body of persons for the services of the public powers."**—(*Bastable*).

In this definition two points should be carefully noted : (*i*) *a tax is a compulsory payment.* Nobody can escape taxation if his income has reached the assessable limit, (*ii*) *a particular tax is not, normally speaking, a price for any particular service performed by a State.* Were it so, it could not be compulsory for those who did not use that service. "The essence of a tax," says Prof. Taussig, "as distinguished from other charges of government, is the absence of a direct *quid pro quo* between the tax-payer

and the public authority." In other words, you cannot refuse to pay a tax on the ground that you do not use a service. A rich man may be childless but he has to pay taxes spent on schools. Taxes are meant to cover the general expenses of the State and are not levied for any particular purpose. Hence the Government does not promise to perform a specific service in return for the payment of a particular tax.

Motives behind taxes. Taxes are mostly levied with the object of raising revenues. A penalty, on the other hand, is imposed to stop people from doing certain things. Sometimes a tax may be levied which does both. It may bring in some revenue and also check people from consuming some harmful articles like opium. Besides, certain taxes may be of the nature of protective duties. They are levied in order to protect some home industry against foreign competition. Sometimes a tax has another motive in view. It aims at removing the inequalities in the distribution of wealth in a society. Well-to-do people may be taxed to provide services like free schooling and free medical aid for the poor. Thus raising revenue is not the only purpose for which taxes are levied.

Prices. When a Government engages in a business enterprise it sells the service to the consumer at a fixed price. The consumer is free to use the service or not. For example, if you use a railway train or send a telegram or a letter, you pay the fixed price ; there is no extra burden on you. Governments do not usually undertake these enterprises for the sake of profit, but to provide such services to the people as can either be provided only by Government or can better be provided by them than by any private agency. Nowadays some Governments undertake in addition certain activities like trade, industry and business with the idea that the huge profits earned should not go into private pockets and should be used for the welfare of the nation.

Fees, Assessments, etc. *A fee* is a payment made by a person to the Government on account of a special benefit received by him. For instance, there are patent fees, court fees, tuition fees, etc. *In every case, there is a specific benefit enjoyed by a person for which he pays a fee. A special assessment* is a particular fee charged from persons the value of whose property is enhanced due to some activity of the Government such as a new canal or a new rail-road, a drain, etc.

Loans. Besides taxes, fees, etc., loans are raised by Governments in emergencies like wars or when a costly enterprise like a new railway line has to be undertaken. Since the benefit from such enterprises accrues to future generations even more than to the present ones, it is reasonable that their burden should also fall on them. Hence loans, and not taxes, are raised to meet them. Loans are nowadays also raised for financing plans of economic development.

6. **Principles or Canons of Taxation.** We have seen that a tax has no connection with the benefit received by the payer. Also, the charge is compulsory. Hence in distributing the burden of taxation, a person's share cannot be decided with reference to the

benefit derived by him. Adam Smith laid down four principles to guide the taxing authority.

Adam Smith's Canons. The principles or canons of taxation of Smith were so important that they have become classic. They are :—

(1) *Canon of Equality.* "The subjects of every State," Smith asserts, "ought to contribute towards the support of the Government as nearly as possible in proportion to their respective abilities, that is, in proportion to the revenue which they respectively enjoy under the protection of the State.....In the observance or neglect of this maxim consists what is called the equality or inequality of taxation." Equality here does not mean that all tax-payers should pay an equal amount. Equality here means equity or justice. It means that the broadest shoulders must bear the heaviest burden.

This canon has given rise to two theories : (*i*) Equality of Sacrifice Theory. It means that the burden of taxation should involve an equal sacrifice for every individual. This equality, however, though good in theory, is difficult to attain in practice. Sacrifice is subjective, something in the mind and feelings of a person. It is difficult to measure. Besides, it has to take into consideration the number of dependents on the earning member in the family, and their standard of living. (*ii*) The second principle indicating justice is the Ability or Faculty Theory which holds that the rich should be made to pay something more than proportionate to their income. A man with an income of Rs. 500 per month will not, other things being equal, feel the same pinch in parting with Rs. 50, as a man with an income of only Rs. 50 feels in paying Rs. 5, because the former's faculty to pay is greater. *On this principle is based progression is taxation, i.e.,* increasingly higher rates of taxation as incomes increase. Proportional taxation will not do justice.

(2) *Canon of Certainty.* Adam Smith further says, "The tax which each individual has to pay ought to be certain and not arbitrary. *The time of payment, the amount to be paid ought all to be clear and plain* to the contributor and to every other person." The individual should know exactly what, when and how he is to pay a tax. Otherwise it causes unnecessary suffering. Similarly, the State should also know how much it will receive from a tax.

(3) *Canon of Convenience.* Smith wrote, "Every tax ought to be levied at the time or in the manner which it is most likely to be convenient to pay it". Obviously, there is no sense in fixing a time and method of payment which are not suitable. Land revenue in India is realised after the harvest has been collected. This is the time when cultivators can conveniently pay.

(4) *Canon of Economy.* Lastly, Adam Smith held that "every tax ought to be so contrived as both to take out and keep out of the pockets of the people as little as possible over and above what it brings into the public treasury of the State." .This means that the cost of collection should be as small as possible. If the bulk of the tax is spent on its collection it will take much out of the people's pockets but bring little into the State's pocket. It is not a wise tax.

Other Canons of Taxation. Economic science has progressed much since the days of Adam Smith. Later writers have added to his canons. The additions are :

(*a*) *Canon of productivity.* This canon emphasizes that a tax should bring in a substantial amount of money to the State. After all, the main object of the taxing authority is to secure funds. Therefore, a tax which does not yield a fair income is useless. It is much better to have a few taxes which yield good revenue instead of many taxes yielding a little.

(*b*) *Canon of Elasticity.* It points out that a tax should automatically bring in more revenue as the country's population or income increases. There should be an automatic link between the needs of the State and the resources of the people. If in an emergency an increase in the rate of the tax brings in increased income, the tax is elastic.

(*c*) *Canon of simplicity.* It argues that the tax system should be simple. Otherwise there would be confusion and, worse still, corruption. During the war and after, certain taxes on sale of cloth and other essential supplies in India resulted in corruption mainly because they lacked in simplicity.

(*d*) *Canon of Variety.* It is also necessary that the tax system of a country should be diversified. Reliance on just a few taxes is risky. The revenue will not be sufficient nor will it be fair because it will not touch a large number of people. In order to be just, a tax system must be broad-based. In order to be adequate, it must be diversified having a wide coverage over commodities and persons.

These are some important principles of taxation. Now let us consider some principles of public expenditure.

7. **Principles of Public Expenditure.** In early times, the main object of public expenditure was to maintain an army to protect the country against invasion from abroad and a police force to maintain law and order at home. As time passed, most States developed into Welfare States. Their objective is now not merely 'policing' the nation. On the other hand, we find that there is no social activity which a State does not regulate. Vast sums of money are spent on what is known as beneficent activities. Free primary education and cheap secondary education are the order of the day. Hospitals for men and animals are maintained. Canals and roads are built. Forests are grown, factories supervised and banks established. The State today gets money from the rich and spends it on the poor. Thus inequalities in income are rolled out and the welfare of the largest numbers secured. Some States have even nationalised transport and foreign trade.

In fact, the underlying idea of all State expenditure today is to secure the welfare of the largest numbers, to raise the standard of living of the poor, to develop mental and physical health by greater production, to provide employment for all to provide the largest possible measure of social security, to protect the land against foreign invasions, to maintain law and order at home and to deal out even-handed justice.

The following are the main principles of public expenditure :—

(*i*) *Maximum Social Advantage.* The most fundamental principle of public expenditure is that it should confer maximum social advantage rather than benefit any particular class or individual. It is to be for the benefit of the society in general and not any particular section of it.

(*ii*) *Economy.* Wasteful expenditure should be avoided. But economy does not mean niggardliness or miserliness. An eye should be kept on the return expected from a particular expenditure. There should be no extravagance. A particular objective should be achieved with minimum of expense.

(*iii*) *Sanction.* No expenditure should be incurred without its being sanctioned by a competent authority. In this way improper expenditure can be avoided.

(*iv*) *Balanced Budget.* Ever-recurring deficits in the budgets should be avoided. Every effort should be made to balance a budget. A sensible State is expected to cut its coat according to its cloth.

(*v*) *Elasticity.* Public expenditure should not be rigidly fixed for all times. Otherwise it will not be possible to reduce it when necessary. Permanent commitments are to be avoided.

(*iv*) *Beneficial Effects on Production and Distribution.* Public expenditure should be so arranged as to encourage production. It should also reduce inequalities of wealth distribution. That is why a large proportion of expenditure is now directed towards benefiting the poor. Hence public expenditure should have wholesome effect both on production and distribution.

These are a few important principles of public expenditure.

WHAT WE GATHER FROM THIS CHAPTER

Meaning of Public Finance. Every Government has certain functions to perform on which it spends the money that it collects through taxes and otherwise. This was true in old times and is equally true today. This process of getting income by a State and spending it is called Public Finance.

Importance of Public Finance. The State has now many more duties than ever before. It gets more money and interferes with life in every way. Thus this department has become very important today. Its importance also lies in the fact that it is being used to reduce inequalities, and do social justice.

Functions of Government. Today Governments perform many more functions than before. Opinions differ about what they should do. But certain things are agreed by all. Preservation of law and order, defence of the country, provision of education, roads, etc., are accepted by all schools of thought. Such duties are classified as protective, developmental, commercial and public utility services. For these, funds are needed.

Difference between an Individual Finance and State Finance. Both need wealth for satisfying their wants but—

(1) An individual's income determines his expenditure whereas the State arranges for an income which it needs.
(2) A public authority can vary its income and expenditure within limits but an individual cannot do so.
(3) A public authority does not discount the future at so high a rate as an individual does.
(4) Surplus budgeting is not necessarily a virtue for the State, but it is so for the individual.
(5) Yearly budgets for the State and no period for the individual.
(6) Secrecy in individual finance and publicity in State finance.

(7) No internal borrowing for the individual.

Sources of Public Income. There are four main heads : Taxes, Prices, Fees and Assessments, and Loans.

Taxes. The most important source of revenues today is taxation. *A tax is a "compulsory contribution of the wealth of a person or body of persons for the services of the public powers"*—(Bastable). It is a compulsory charge and is not a payment for a definite service.

Prices are charged on sale of the service of business enterprise, *e.g.*, railway, tram, postal service, etc.

Fees are payments for benefits received.

An **assessment** is a special fee for a special State service, *e g.*, a canal or a road, drainage, street paving, etc.

Loans are borrowed for special purposes, *e.g.*, war or economic development.

Objects of Taxation. A tax is levied (*a*) to raise revenues, (*b*) to check the production or consumption of some harmful drugs, (*c*) to protect home industries, or (*d*) to level up differences in incomes to some extent.

Principles or Canons of Taxation. Adam Smith's canons :-

(1) *Canon of Equality* or equity, *i.e.*, there should be equality of burden among tax-payers. The difficulty is how to put this rule into practice.
(2) *Canon of Certainty.* Every tax-payer should be certain about the nature and amount of payment he is to make.
(3) *Canon of Convenience.* A tax should be charged in a manner convenient to the payer.
(4) *Canon of Economy.* A tax should not cost too much for its collection.

Later Canons. Some further principles have been added to the four given above. They are the canons of *productivity* (capacity to yield good revenue), *elasticity* (capacity to increase yield automatically), *simplicity* (the tax system should be understandable) and *variety* (a large variety of taxes than just a few ones).

Principles of Public Expenditure. The main principles are :

(*i*) Maximum social advantage.
(*ii*) Economy.
(*iii*) Sanction.
(*iv*) Balanced Budgets.
(*v*) Elasticity.
(*vi*) Beneficial effects on Production and Distribution.

CAN YOU ANSWER THESE QUESTIONS ?

1. Why does Government need revenue ? Point out the important sources of a modern State [See Secs. 1, 2, and 5.] *(P.U. 1946)*

2. Describe the main heads of revenue and expenditure of your own State and give brief comments on each item. *(Ajmer 1955)*

[Heads of revenue : Land revenue, forests, excise stamps, share in income-tax and central excise, sales tax, entertainment tax, etc.
Heads of expenditure : Agriculture, industries, roads education, public health, police, civil administration, irrigation, etc.]

3. What are the principal sources of revenue and heads of expenditure of a modern State ? *(Bombay 1954)*

[Sources of revenue : Income tax, customs, excise, railways, post and telegraph, death duties, wealth tax, etc.
Heads of expenditure : Defence, transport and communication, education, medical aid, irrigation, social insurance, public debt, civil administration.]

4. How would you classify public expenditure ? What are the principal items of expenditure of the Indian Union ? [See Sec. 3.] *(P.U. 1955)*

5. Write a short note on the doctrine of maximum social advantage as the aim of Public Finance. [See Sec. 3.]

6. What is Public Finance? Is there any essential difference between public and private finance? [See Secs. 1 and 4.] *(P.U. 1943; Agra 1937)*

7. What do you understand by public works? Why are they undertaken by public bodies rather than by individuals?

[Roads, bridges, hospitals, etc. They are too huge for individual efforts, and are of equal benefit to all.]

8. What is a tax? Distinguish it from (i) a fee, (ii) a penalty, and (iii) a price. [See Sec. 5.]

9. Differentiate 'protective' from revenue duties. What are the motives kept in mind by the authority while levying a tax?

[Protective duties are levied primarily for giving protection to home industries, whereas the primary purpose of the revenue duties is to raise revenues. There is a greater continuity in the former than in the latter. Further see Section 5.]

10. Explain in brief the principles of taxation. Give illustrations. [See Sec. 6.] *(J. & K. 1958; P.U. 1958)*

Or,

Define a tax. What are the canons of taxation? *(Rajasthan Pre-University 1960)*

Or,

State and explain Adam Smith's canons of taxation. *(Utkal 1959 Suppl.)*

Or,

State and explain the various canons of taxation. *(Pb. Univ. H.S. 1962 Suppl.)*

11. Explain the main canons of taxation. How far do the chief taxes in your State conform to these canons? *(P.U. 1960)*

12. "The rich should be taxed proportionately more than the poor." Discuss. [See Sec. 6. (i).] *(Bihar 1956)*

13. Discuss the principles of taxtion. What are the dangers of ignoring these principles? [See Sec. 6.] *(P.U. 1951)*

[If these principles are ignored, either the revenue will shrink or there will be a grave discontent among the people.]

14. What are the characteristics of a good tax system?

[See next chapter Section 8 and this chapter Sec. 6.] *(Bombay 1952)*

15. Take up two of the well-known taxes in our country and discuss how far they satisfy the well-known principles of taxation.

[See part II, Chapter on Taxation.]

16. Lay down a few principles of public expenditure. [See Sec. 7.]

17. Discuss the principles of public expenditure. Distinguish between current and capital expenditure. [See Sec. 7.] *(P.U. 1959 Supp.)*

18. Discuss the theory of maximum utility in public expenditure. *(C.U.B. Com. 1926)*

[See Section 7. Expenditure should be aimed at promoting public welfare. Public expenditure should not absorb an unduly large portion of the income of the citizens, it should avoid unnecessary wastes; and it should be elastic.]

19. Define Taxes. Distinguish between:

(a) *Income Tax, Excess Profits Tax and Super Tax* *(P.U. 1942, 47)*

(b) *Progressive Tax and Proportional Tax.*

(c) *Specific Duty and Ad Valorem Duty* *(P.U. 1944)*

[(a) Income tax is levied on the income. Excess profits tax was levied during the war on the extra income earned by people due to extraordinary conditions and not due to any ability. Super-tax is imposed on very high incomes.

(b) Progressive Tax means higher incomes are taxed at higher rates, while in the case of proportional tax, the rate of tax is the same whatever the income.

(c) A specific duty is levied according to the weight of the commodity; on the other hand *ad valorem* is levied in proportion to the value of the commodity]

CHAPTER XXXI

TAXES

"Pluck the goose without its squealing"

1. **Burden or Incidence of a Tax.** Having discussed the objective of taxation, we are faced with the problem of distribution of the burden of taxes In old times, kings used to charge taxes earning little for the suffering involved and as to who suffered. But things are different today. Before taxes are levied, their immediate and long-range effects are worked out, their burden on different people carefully calculated and taxes classified. Effects are made to discover as to who immediately pays the tax and to whom it is ultimately shifted. Only thus can the real burden of a tax be found and adjusted to suit different classes.

2. **Kinds of Taxes.** Taxes may be (*i*) proportional, (*ii*) progressive, (*iii*) regressive and (*iv*) degressive.

(*i*) A *proportional tax* is one which takes out of the pockets of every person exactly the same percentage of income. For instance, a tax on all incomes, big or small, at a flat rate of say 5% would be a proportional tax. *Such a tax is very simple aud does not change the level of distribution of wealth.* But obviously poorer people with smaller resources are hit harder in this system. Consequently in modern taxation proportional taxes have been given up in favour of progressive taxes.

(*ii*) A *progressive tax* tries to distribute the sacrifice in a more just manner. The higher incomes are charged at a higher rate. Since the marginal utility of money falls with its increase, richer people have a greater capacity to pay taxes. Besides, *progression reduces inequalities in wealth to some extent.* The rich are made to pay increasingly higher taxes for helping the poor. As the progressive method of taxation involves less total sacrifice, most States, including India, have adopted it.

Progressive taxation is quite reasonable in theory. But in *practice it is difficult to decide the rate of progression* which will bring about equality in sacrifice. The usual practice is to go on increasing the rato till the tax-payer starts 'squealing'. It should be remembered that very high rates of taxes on income check investment and production. The correct rates are discovered only after a great deal of experimenting. India has introduced fairly steep progression in taxes on income. Thus incomes at the higher stages pay more than 8 as. in the rupee as income tax.

(*iii*) A *regressive tax* is one which is charged from the poor at a higher rate than from the rich. There is no justification for taxing higher incomes at lower rates. The system is unjust. It has only one thing in its favour and that is that as poorer people are more

in number, such a tax brings in greater revenue. But *regressive taxes are bad in principle and should be avoided as far as possible.* In fact, they do not figure in the tax systems of modern States. The rent on lands in India has been criticised on this ground. It hits the poor peasant much harder as his income is very small, sometimes not even enough to live upon, and yet he has to pay rent at the same rate as the biggest landlord.

(*iv*) A *degressive tax* increases as the income rises, but the rate does not increase in the same proportion as the income. It is, so to say, a milder form of progression which means that larger incomes make a lower relative sacrifice than smaller incomes.

A *well-thought-out system of progressive taxation is the best under all circumstances.* India is gradually evolving an excellent system of taxation. Except for the tax on lands, which still remains defective, we have quite a scientific and just system of taxation comparing favourably with most other countries.

3. **Direct and Indirect Taxes.** Another distinction of no less importance is the one between direct and indirect taxes. Generally *taxes on income* are 'direct' and *those on goods* 'indirect.' "A direct tax is one which is really paid by the person on whom it is legally imposed while an indirect tax is imposed on one person but is paid partly or wholly by another." (*Dalton*)

Impact, Incidence and Shifting. Supposing a tax is levied on house-owners. Being compulsory they have to pay it or, in specific terms, the '*impact*' of the tax is on them. 'Impact' here means 'burden.' Naturally house-owners will not pay it quietly. Apart from efforts to get it repealed, they can try to make it up by raising their rent charges. The tenants, too, will try to avoid it but if they cannot get alternative accommodation, they have no option but to suffer the increase in rent. The house-owners have, so to say, "*shifted their burden*" to their tenants. But this shifting may go even further. Suppose the tenants are employed in offices and are well organised. They can demand house rent allowance or increased salaries. If they succeed, the burden is shifted to the employers. The employers in their turn may raise the price of their produce and make their customers pay the tax. *This shifting may go to any length.* But somewhere it must come to an end. The real burden will then be borne by the people who cannot push it any further. The '*incidence*' or the real weight of the tax thus falls on them. *Shifting starts with impact and ends in incidence.* Thus *the impact may be on one set of persons and the incidence on a different group* altogether.

Now, **'a direct tax is one whose impact and incidence are on the same person'**, *i.e.*, the tax-payer is also the tax-bearer. **An indirect tax, on the other hand, is one of which the impact and incidence are on different persons,** *i.e.*, there is a shifting of the tax. J.S. Mill defines a direct tax as one which is levied on the same person who is desired to pay it (*e.g.*, income tax or death duties). An indirect tax, conversely, is one which is levied on one person with the expectation or intention of its being shifted

to some other person (*e.g.*, taxes on commodities like sugar, tobacco, steel, etc.).

4. **Advantages of Direct Taxes.** Direct and indirect taxes have advantages of their own. Direct taxes have some merits and so have the indirect taxes. Direct taxes have the following advantages in their favour :—

(1) *Equitable.* The burden of direct taxes cannot be shifted. Hence, equality of sacrifice can be attained through progression. Lowest incomes can be exempted. This cannot be achieved by taxes on commodities which fall with equal force on the rich and the poor. The tax raises the price of the commodity and the price of a commodity is the same for every person, rich or poor.

(2) *Economical.* Their cost of collection is low. They are mostly collected "at the source." For instance, the income tax is deducted from an officer's pay every month. This saves expense. The employer acts as an honorary tax collector. This means great economy.

(3) *Certain.* In the case of a direct tax, the payers know how much is due from them and when. The authorities also know the amount of revenue they can expect. There is certainty on both sides. Certainly it minimises corruption on the part of collecting officials.

(4) *Elastic.* If the State suddenly stands in need of more funds in an emergency, direct taxes can well serve the purpose. The yield from income tax or death duties can be easily increased by raising their rate. People cannot stop dying for fear of paying death duties.

(5) *Productive.* Another virtue of direct taxes is that they are very productive. As a community grows in numbers and prosperity, the return from direct taxes expands automatically. The direct taxes yield a large revenue to the State.

(6) *A means of developing civic sense.* In the case of direct tax, a person knows that he is paying a tax, he feels conscious of his rights. He claims the right to know how the Government uses his money and approves or criticises it. Civic sense is thus developed. He behaves as a responsible citizen.

5. **Disadvantages of Direct Taxes.** (1) *Inconvenient.* The great disadvantage of a direct tax is that it pinches the payer. He 'squeaks' when a lump sum is taken out of his pocket. The direct taxes are thus very inconvenient to pay. Nobody can help feeling the pinch.

(2) *Evadable.* The assessee can submit a false return of income and thus evade the tax. That is why a direct tax is "a tax on honesty." There is a lot of evasion. Many of those who should be paying taxes go scot-free by concealing their incomes.

(3) *Arbitrary.* If taxes are progressive, the rate of progression has to be fixed arbitrarily; and if proportional, they fall more heavily on the poor. Thus both are bad. The rate of taxes depends upon the whim of the Finance Minister. This is arbitrary.

(4) If the taxes are too heavy, they discourage saving and investment. In that case the country will suffer economically. This

is what happened in India. The Liaqat Ali Budget (1947-48) discouraged investment and enterprise in India. It did lot of damage to Indian business and industry.

Conclusion. *On the whole, the advantages of direct taxes more than outweigh their disadvantages. At any rate, there is no escape. Direct taxes have to be imposed to carry on the business of the State.*

6. **Advantages of Indirect Taxes.** Indirect taxes have advantages of their own. Briefly speaking, (1) they are the *only means of reaching the poor.* It is a sound principle that every individual should pay something, however little, to the State. The poor are always exempted from paying direct taxes. They can be reached only through indirect taxation.

(2) *They are convenient to both the tax-payer and the State.* The tax-payers do not feel the burden much, partly because an indirect tax is paid in small amounts and partly because it is paid only when making purchases. But the convenience is even greater due to the fact that the tax is "price-coated." It is wrapped in price. It is like a sugar-coated quinine pill. Thus a tobacco tax is not felt when it is included in the price of every cigarette bought. It is convenient to the State as well which can collect the tax at the ports or at the factory. A dealer collects the tax when he charges a price. He is an honorary tax collector.

(3) *Indirect taxes can be spread over a wide range.* Very heavy direct taxation and just one point may produce harmful effects on social and economic life. As indirect taxes can be spread widely, they are more beneficial and suitable.

(4) *They are easy to collect.* Collection takes place automatically when goods are bought and sold.

(5) *They cannot be evaded*, as they are a part of the price. They can be evaded only when the taxed article is not consumed, and this may not be always possible.

(6) They are *very elastic in yield* if imposed on necessaries of life which have an inelastic demand. Indirect taxes on necessaries yield a large revenue, because people must buy these things.

(7) When imposed on luxuries or goods consumed by the rich *they are equitable.* In such cases only the well-to-do will pay the tax.

(8) *They check consumption of harmful commodities.* That is why tobacco, wine and other intoxicants are taxed.

7. **Disadvantages.** Indirect taxes have some disadvantages too which are as follows :—

(1) *They are regressive.* Indirect taxes are not equitable. For instance, salt tax in India fell more heavily on the poor than on the rich, as it had to be paid at the same rate by all. Whether a rich man buys a commodity or a poor man, the price in the market is the same for all. The tax is wrapped in the price. Hence rich and poor pay the same amount which is obviously unfair.

(2) *They are uncertain of return* unless necessaries are taxed. In the case of goods with an elastic demand, the tax might not bring in much revenue. The tax will raise the price and reduce the

demand. When the thing is not purchased, the question of the tax payment does not arise.

(3) *They cause the price of an article to rise by more than the tax.* A fraction of the money unit cannot be circulated, so every middle-man tends to charge more than the tax. This process is cumulative.

(4) *They are uneconomical.* The cost of collection is quite heavy. Every source of production has to be guarded. Large administrative staff is required sometimes to administer such taxes. This turns out to be a costly affair.

(5) *They do not develop civic consciousness*, because many times the tax payer does not even know that he is paying a tax. The tax is concealed in the price.

(6) *They discourage industries* if raw materials are taxed.

In answer to the question whether direct or indirect taxes are better, much can be said on both sides. But it is safe to conclude that no country can do with one type only. Both types have to be mixed in a good system of taxation. The rich can be taxed best directly but pockets of the poor have also to be tapped through indirect taxes. Nowadays, when State intervention is assuming greater importance, substantial amounts are required for the discharge of its multifarious activities. Neither the direct nor the indirect taxes alone can raise this much revenue. Both are necessary. Their relative importance depends on a number of factors, such as distribution of income, nature of economic system, stage of economic development, etc. Thus the discussion of the relative merits and demerits of direct and indirect taxes is only academic. It has no practical importance.

8. **A Good Tax System**. A good tax system is one in which most taxes conform to the main canons of taxation. *They should be equitable, i.e.*, they should be according to the tax-payer's ability to pay. *They should be convenient*, so that the tax-payers can easily pay them. *They should be economical*, so that the cost of their collection is low. Moreover, both the tax-gatherer and the tax-payer should know clearly the amount to be paid. Further, the tax should be *elastic, simple to understand and adequate in yield.*

Not only should a good tax system conform to the canons of taxation, it should also include taxes on necessaries and taxes on luxuries, indirect taxes as well as direct taxes. The tax system should be broad-based. Diversity in taxes will prevent anomalies. The defects of one tax will be neutralised by merits of another. "A tax should bear lightly on many points and heavily on none."

It is also necessary that the taxes should be such as cannot be easily evaded. They should admit of efficient administration.

Finally, the tax system should not be a collection of various unco-ordinated taxes. It should be a system in which each tax fits in properly. The taxes should not pull in opposite directions. For instance, to levy a protective duty and also an excise duty on the same good ordinarily will defeat the very purpose of the protective duty.

To judge a tax system we should consider it as one whole rather than pick out simple taxes for consideration.

9. **War Finance.** In times of war and emergency, things are abnormal. The financial policy of the Government, therefore, has to be changed to meet this emergency.

In times of war, the question of finance is of secondary importance. The question that a nation asks is not "Can we afford it ?" but "Is it possible ?" Money is only a camp follower.

In war time, every resource of the nation is at the disposal of the State including manpower. The State raises money through taxation and with it buys the goods and services it requires. But needs are so large that taxes alone cannot cover them. It has to proceed by compulsion, by conscription, by control of labour, by rationing and allocation of resources.

All this money has to come from somewhere. Following are the main sources of income in war times :

1. *Increased taxation.* A sound policy is to push the tax rates to the limit that they can be *reasonably* borne by the tax-payers. Too heavy a burden of taxation will cause discontentment. Not only are the rates of existing duties raised but new sources of revenue have also to be discovered and tapped.

2. *Income from its own Property.* Every government derives certain income from Crown lands, government factories and various social insurance funds.

3. *Foreign Borrowings*, as the British Government did during the last war in the United States and in Canada.

4. *Home Borrowings.* By every method of publicity government exhorts the people to invest in war bonds, defence certificates, etc.

5. *Creation of Money.* If the above methods fail to bring necessary funds, resort has to be taken to print notes. But it is a very dangerous method because it brings about inflation with all its evils.

10. **Developmental Finance.** A very important question that faces many countries today is how to finance economic development plans. Huge resources are required for this purpose. In under-developed and economically backward countries there is a very small margin between the volume of production in the country and consumption which limits the possibility of savings. This makes the problem of financing development plans all the more difficult.

Finance is required both for the private and the public sector. The private sector, *i.e.*, businessmen can count upon voluntary savings of the people. They can also reinvest profits of trade and industry. Institutions like Finance Corporations can also help them. Financing developments in the public sector is, however, the sole responsibility of the Government. This relates to finding capital for State undertakings.

The following are the principal methods of development finance :—

(1) *Taxation.* Both direct and indirect taxes have to be levied to increase the State resources. Taxes restrict domestic consumption and increase savings. It is best to impose taxes on luxury consumption and on non-entrepreneurial incomes. In backward countries, it is essential to levy indirect taxes on commodities of mass consumption. Agricultural taxes are also necessary. But care has to be taken that taxes do not weaken incentives to work, save and invest.

(2) *Government Borrowing.* The savings of the people can be mobilised by means of public loans. But the private sector competes with the government in this matter. To ensure success of the government borrowing, it is essential to establish and extend financial institutions in rural areas. It is also necessary to check unproductive investment such as real estate, jewellery, etc.

(3) *Foreign Capital.* Foreign aid is also essential. But it must be without 'strings', *i.e.*, independence of the country must not be endangered. Foreign loans nowadays come from governments and international financial institutions like the World Bank and International Development Association.

(4) *Profits of Government Undertakings.* In course of time, government undertakings yield profit and help in financing further development.

(5) *Deficit Financing.* This is also an important source. This is 'created' money Care has to be taken to keep it within limits, otherwise it may lead to dangerous inflation.

India has made use of all these methods in financing her Five-Year Plans.

11. **Deficit Financing.** The use of deficit financing to maintain, in the face of declines in private spending, total spending or effective demand in the economy at the level required to buy the full employment output at the current level of prices, was an important discovery of the Depression Economics of nineteen-thirties. To-day, it is a major instrument in the hands of governments in the advanced private enterprise countries to ensure continued high levels of economic activity in the face of occasional tendencies to a decline in private spending especially private gross domestic investment. Lately, the underdeveloped countries have increasingly realised its potentialities for adding to the resources available for development. During the First Five-Year Plan in India, for instance, deficit financing is now estimated to have met about Rs. 500 crores of development outlay. During the Second Five-Year Plan period, no less than Rs. 1,200 crores are proposed to be obtained in this way. Deficit financing is becoming, indeed, an important lever for ensuring continued high level of activity in the advanced countries and for accelerating economic development in the less developed countries.

What is Deficit Financing ? The definition of deficit financing is likely to vary with the purpose for which such a definition is

needed. For example, one may be interested in knowing how far is the government 'living within its means'. For that purpose, one may regard the excess of government expenditure over its normal receipts raised by taxes, fees and earnings of government commercial enterprises as a measure of the deficit in the government budget. In this definition, such expenditure whether financed by borrowings from the public or from the banking system measures the budget deficit. Then one's interest may be to measure the net expansionist or inflationary impact of the government budget. Expenditure by the government constitutes a claim on the resources available to the economy. Certain receipts of the government, like taxes, withdraw purchasing power from the people and thus reduce their claims on resources correspondingly. It is because some receipts of the government do not reduce the purchasing power of the people at all or in an equal measure that they constitute deficit financing with an expansionist significance. In deciding the items of government receipts to be included in the deficit we have to ask whether a receipt withdraws purchasing power from the people by a corresponding amount or not. No categorical answer can we given to this question and, therefore, economists differ regarding the correct definition of deficit financing. Again, one may use a budget deficit to measure the contribution of the government to overall liquidity of the economy. The analysis of inflationary pressures often proceeds, despite the Keynesian revolution, in terms of the changes in money supply or the creation of near money assets. Some receipts like taxes do not create any corresponding assets in the hands of the public whereas others, like borrowing, do. Here again the extent of liquidity that attaches to an asset depends on the assumptions one makes about monetary and other policies and about the institutional framework.

From the above discussion, we learn that it is not possible to have a foolproof definition of deficit financing applicable to all countries at all times. The definition of deficit financing adopted by the Planning Commission in India is that it is equal to the net increase in the purchasing power of the economy arising out of the budgetary operations of the government. Deficit financing is said to have been practised whenever government expenditure exceeds the receipts from the public like taxes, fees and borrowings from the public. Such an excess of government expenditure can be financed either by drawing down the cash balances of the government (held in the Reserve Bank of India or in the State treasuries) or by borrowing from the Reserve Bank of India. Both these methods of financing the deficit would have the effect of expanding money supply held by the public. Thus the Indian definition of deficit financing is that it is that part of government expenditure which is met either by drawing down the cash balances of the government or by resorting to borrowing from the Reserve Bank of India. This definition of deficit financing therefore identifies it with that part of government expenditure the finance of which leads to a net increase in money supply with the public.

Deficit Financing During the Depression. We have discussed in the chapter on Trade Cycle the causes of unemployment in advanced and developed countries. There we observed that a deficien-

cy of effective demand was the major cause of cyclical unemployment. In a situation like this, the obvious remedy is to boost effective demand. The government can assist in this process in a number of ways. If the government does not want to interfere, it can stimulate private consumption and investment. It can do so by lowering the tax rates while maintaining its own expenditure. In this case, since the government is spending more than it raises in taxes, it is practising deficit financing, the deficit being covered by borrowing. If this method of stimulating economic activity does not produce sufficiently effective results, the government can increase its own expenditure on public works programme. The government's tax revenue remains constant but its expenditure has gone up, the deficit once again being met by borrowing. In this case, as government investment rises, the level of national income and employment also increases by multiplier times the increase in primary government investment. Thus deficit financing can be used to create additional employment when the economy is suffering from a deficiency of effective demand.

This line of approach was made fashionable by the late Lord Keynes. Before him, there was a great deal of prejudice against a government practising deficit financing. The classical economists were against deficit financing except for financing of productive enterprises. This opposition to deficit financing on their part was based on the assumption that in a private enterprise economy the level of activity had the tendency to be always full—an assumption we discussed in an earlier chapter under Lay's Law of Markets. Obviously, if there is already full employment in the economy, a government expenditure financed by the created money is bound to create inflationary rise in prices. This fear of inflation constantly haunted the classical economists and it was their main argument against deficit financing.

Lord Keynes, however, established it conclusively that in a situation where there was large-scale unemployment of labour and excess capacity in the stock of capital, the fear that deficit financing would create inflation was baseless. For when more employment was created by deficit spending on the part of the government, there would simultaneously take place an increase in the supply of output. In the depression, an increase in supply can be had without any rise in average and marginal costs of production, so that additional demand creates additional supply of output without any rise in prices. Thus in a depression, deficit financing can be safely used to expand income, output and employment without any inflationary danger. Rather, in a depression it is better to finance government expenditure by deficit financing than by increasing the rates of taxation. The later alternative will not stimulate economic activity as much as the former for the raising of tax rates must produce some adverse effects on private consumption and investment and hence will reduce the private effective demand. Thus the expansionary effect of government expenditure will be partly neutralised by the contractionist effect of higher taxation on private investment and consumption. This adverse effect on the private sector will not be there if

additional government expenditure is financed by 'created' money and therefore the expansionary effect of government expenditure will correspondingly be greater.

Deficit Financing and Economic Development. What scope is there for deficit financing to be used as an instrument of economic development in the under-developed countries like India ? In the chapter on Theory of Employment, we have observed that the basic problem confronting these countries is that of a population growing much faster than the rate of capital formation If these countries are to provide full employment to their labour force, they need huge amounts of capital. Unlike the advanced economics, the problem facing under-developed countries is not one of deficiency of effective demand but lack of sufficient capital. In the advanced capitalist countries, the task of capital formation is in the hands of private entrepreneurs but in poor countries there is a dearth of people willing and able to undertake entrepreneurial functions. Hence if these countries are to develop rapidly the responsibility must rest with the government.

The basic problem as explained earlier, can be solved only by increasing the rate of investment. This requires additional resources and in the absence of sufficient foreign aid, they can come out only through increased domestic savings and their being channelised along productive lines. One way of increasing domestic savings is through additional voluntary efforts on the part of the public. These savings are then utilised through the national small savings schemes to add to the resources available to the government. But in a country where a majority of people are living on the subsistence level, the margin between income and consumption is very low so that voluntary savings, howsoever welcome, cannot by themselves provide sufficient resources for development. The government may also attempt to increase the volume of resources by additional taxes. During the last few years, taxes have been increasing in our country to find resources for development activity. Yet because of extreme poverty of the great mass of the people, additional taxation beyond a point raises difficult problems, both economic as well as political. Therefore, in their anxiety to implement development schemes, the governments are compelled to resort to deficit financing. In the First Five-Year Plan, of the total actual Plan outlay of Rs. 1,960 crores in the public sector, 21 per cent of the outlay worth Rs. 420 crores was financed through deficit financing. In the Second Five-Year Plan, there is a further provision for Rs. 1,200 crores of deficit financing. What are the problems raised by deficit financing ?

Deficit Financing and Inflation. Deficit financing practised during the depression in advanced countries does not generate inflationary pressures because of the elastic nature of the supply curves of output. Additional government expenditure leads to an increase in effective demand, depending on the magnitude of the multiplier. Similarly, when supply of output can be increased easily to match additional demand, there need be no inflationary pressures. In advanced countries, during the depression, there is lot of excess capa-

city in the system so that an increase in output presents no difficult problems.

The situation in under-developed countries, however, is different. Here an increase in investment does create additional demand but a corresponding increase in the supply of output cannot be taken for granted. Firstly, an under-developed country suffers from the dearth of capital and there is no excess capacity to be utilised for creating additional supply of consumers' goods. Besides, the basic wage-goods industry, *i.e.*, agriculture suffers from an inelastic supply curve in the short run. In a subsistence agriculture, when the demand for agricultural products goes up, the farmer often lacks the willingness as well as the ability to increase his output. The farmer's demand for non-agricultural goods to be used for his consumption is limited so that when agricultural prices rise relatively to the prices of industrial products, the farmer can satisfy his needs with a lower effort than before and his reaction may well be to work less in the next period. Besides, even if he wants to increase his output, his ability to do so is very limited. His holding is a tiny one and often lies scattered all over the village, he lacks resources to buy more and better seeds and manures, irrigation facilities are lacking so that even with the best will in the world, unaided by any outside agency, the farmer's efforts to increase his output may not bear fruit. In the absence of an elastic supply of consumers' goods, a development plan carries with it a great inflationary bias.

In the earlier stages of development, the inflationary danger is very real indeed. This is because of the urgent need to invest large sums in the creation of an adequate system of transport and communications. Such investments generate demand like any other investment outlay yet they do not directly add to the supply of output of consumption goods. For all these reasons, deficit financing in underdeveloped countries is full of inflationary potentialities and these have to be watched carefully so as to keep them under control. Deficit financing results in a net increase in the money supply with the public. Of course, there is no direct relation between an increase in money supply and the inflationary rise in prices. If, for example, the newly created money is merely hoarded or saved, no inflationary pressure is generated. But to the extent that new money is used to offer additional employment to the hitherto unemployed or the new recruits to the working force, a large part of it will be spent and hence add to the level of effective demand. Similarly, if sufficient additional supply of consumers' goods can be made available with the help of the additional investment, once again there need be no inflationary pressures and supply and demand may be in equilibrium at a higher level.

WHAT WE GATHER FROM THIS CHAPTER

Burden of Tax. Taxes are sometimes shifted. The burden falls on the person who pays it in the end.

From the point of view of their nature and burden, taxes are classified in these ways. A tax may be :

(1) *Proportional, i.e.*, levied *at the same rate* on all incomes. Poorer people are hit harder by such taxes.

(2) *Progressive* in which the rate of taxation rises as the income increases. This system attempts to equalize sacrifice. A minimum is exempted for the same reason. The difficulty is of deciding the exact progression.

(3) *Regressive*, which falls at a higher rate on the poor people; a very unjust system.

(4) *Degressive* which has a diminishing progression. This too is not so good.

A tax may be *direct* or *indirect*. A tax is direct when its real burden remains on the man on whom it is imposed. In certain cases, however, the real burden can be shifted on to other shoulders. Then the tax becomes indirect. Nominal burden is called *Impact* and real burden *Incidence*.

Advantages of Direct Taxes :

(1) *Equitable*. Equity can be attained through progression on rising incomes.

(2) *Economical*. Being collected at the source, the cost is low.

(3) *Certain*. The taxing authority and the tax-payer should know the amount of the tax.

(4) *Elastic*. Yield can be increased by raising the rate of taxation.

(5) *Productive*. The yield from a direct tax increases with growing population and prosperity.

(6) *Civic sense* is developed among citizens.

Disadvantages :

(1) *Inconvenient*. The payer feels a pinch in paying the tax in cash.

(2) *Evadable*. Direct taxes can be evaded by means of false returns.

(3) *Arbitrary*. The rate of progression has to be fixed arbitrarily.

(4) Too high direct taxes discourage saving and investment.

Conclusion. On the whole, direct taxes have more good than bad points.

Advantages of Indirect Taxes :

(1) They are the only *way of reaching the poor*.

(2) *Convenient to pay*. They are paid at a suitable time and are hidden in price.

(3) They can be *spread over a wide range*.

(4) Easy and economical to collect.

(5) *Not evadable* in an illegal manner.

(6) *Elastic* in yield when necessaries are taxed.

(7) Can help in *checking the use of harmful articles* like opium.

Disadvantages of Indirect Taxes :

(1) *Regressive*. The same rate has to be paid by everybody, however poor.

(2) *Uncertain of result* in case of non-necessaries.

(3) *Cause price to rise unduly*. Every middleman adds something.

(4) *Uneconomical*. Checking is expensive.

(5) *Do not develop any civic sense* as they are concealed in the prices paid.

(6) *May discourage industries* if raw materials are taxed.

A Good Tax System. A good system of taxation has to embrace both direct and indirect taxes. The system as a whole should satisfy various principles of taxation. It should conform to the various canons of taxation. It should be composite. It should be broad-based. Evasion should be difficult. The system as a whole should be a co-ordinated one so that one tax is not incompatible with another.

CAN YOU ANSWER THESE QUESTIONS ?

1. Explain the meaning of 'incidence' of a tax. Distinguish it from the effect of the tax.

[See Sections 1 and 3. Effect is different from the 'burden' of a tax. Effect may be to check people from consuming an article due to the incidence of the tax.]

2. What is Progressive Taxation ? *(P.U. 1930)*

On what grounds do you justify Progression ? [See Sec. 2.]

[It can be justified on the principle of equality or justice. It is based on the law of diminishing utility.]

3. What is Income Tax ? Explain with the aid of an example the difference between impact and incidence of taxation. *(P.U. Pre. Univ. 1962)*

4. Distinguish between progressive and proportional taxation and consider their advantages and limitations.

[See Sec. 2.]

(C.U.B. Com. 1941 ; C.U. 1934 : Agra 1936 ; Dacca 1942 ; Ban. 1938 ; Mad. 1937 ; Pun. 1938)

5. Distinguish between Direct and Indirect taxes. Discuss their relative merits and demerits. (Rajasthan Inter. 1960 ; Ajmer Board Inter. 1960, P. U. 1959)

Or,

Distinguish between a Direct and an Indirect tax. Which type of these taxes are better and why ? *(P.U. H.S. 1962)*

[See Secs. 3 to 7.]

6. Explain :

(i) Shifting.

(ii) Impact.

(iii) Incidence.

(iv) 'Proportional' tax.

[For (i), (ii), (iii) see Secs. 1 and 3. For (iv), see Sec. 2.]

7. Name three direct taxes which are levied in India. Bring out the merits and demerits of direct taxes with special reference to these taxes.

8. Give three examples of indirect taxes and with reference to them explain the merits and demerits of indirect taxes.

9. Distinguish between direct and indirect taxes. Which of the following taxes are direct or indirect—

Excise duties : Estate Duty ; Business Profits Tax.

What are the relative merits of direct and indirect taxes ?

10. Discuss the main considerations which usually underlie the system of taxation in a country. *(C.U. 1941)* [See Sec. 8.]

11. Take two of the well-known taxes in our country and discuss how far they satisfy the well-known principles of taxation.

12. How would you judge if the tax system in our country is good or just ? *(Gauhati 1957)*

[Sec. 8.]

13. How are funds raised for war or for financing development plans. Illustrate from India's five-year plans.

CHAPTER XXXII

NATIONAL INCOME AND SOCIAL ACCOUNTING

1. **Introduction.** It has long been considered wise for a household and necessary for a business enterprise to keep account of its operations, that is, of its receipts and payments. Now it is being increasingly realised that such accounting is also very necessary for the national economy as a whole and for the various parts into which it may be split up for the sake of convenience and clarity. This system of keeping the accounts of the receipts and payments of the nation or country as a whole is called National Income Accounting or Social Accounting. A system of national income accounting permits us to keep a finger on the economic pulse of the nation. The statistics of national income help us to measure the level of production in the economy at some point in time. Further by comparing the national income accounts over a period of time, it is possible to trace the long-run course which the economy has been following. In other words national income accounts over a period will show the *growth* or *decline* of the economy. Finally, the information supplied by the national income accounts provides a basis for the formulation and application of public policies designed to improve the performance of the economy. National income statistics are a valuable guide to economic policy especially in these days of planning and active government intervention in the economy.

2. **What is National Income?** National income, in the words of Pigou, "is that part of the objective income of the community including, of course, income derived from abroad, which can be measured in money." The national income, national output, national expenditure are the same things looked at from different angles. Income earned is equal to income spent, therefore national income is the same thing as national expenditure. There are various concepts of national income which we will study one by one.

(i) *Gross National Product.* (G.N.P.). This is the basic social accounting measure of the total output or aggregate supply of goods and services. *Gross National Product is defined as the total market value of all final goods and services produced in a year.* Two things must be noted in regard to gross national product. First, it measures the market value of annual output. In other words G.N.P. is a *monetary measure.* There is no other way of adding up the different sorts of goods and services produced in a year except with their money prices. But in order to know accurately the changes in physical output, the figure for gross national product is adjusted for price changes.

Secondly, for calculating gross national product accurately, all goods and services produced in any given year must be counted

once, but not more than once. Most of the goods go through a series of production stages before reaching a market. As a result parts or components of many goods are bought and sold many times. Hence to avoid counting several times the parts of goods that are sold and resold, gross national product only includes the market value of final goods and ignores transaction involving intermediate goods.

What do we mean by *final goods* ? Final goods are those goods which are being purchased for final use and not for resale or further processing. Intermediate goods, on the other hand, are those goods which are purchased for further processing or for resale. The sale of final goods is included in gross national product while the sale of intermediate goods is excluded from gross national product. Why ? Because the value of final goods includes the value of all intermediate goods used in their production. The inclusion of intermediate goods would involve double counting and will therefore give an exaggerated estimate of gross national product. An example will clarify this point. Suppose in our economy only two things are produced, raw cotton worth Rs. 100 and cotton cloth worth Rs. 200. Now what shall be the measure of gross national product ? For finding it, if we add up the sales value of cloth and cotton, there is clearly an element of double counting in the sense that we have added the value of cotton twice—once as the sales value of cotton and secondly when we added to it the value of cloth. Actually, the value of cloth includes also the value of cotton which having been accounted for already, should not be added a second time.

The "gross national product at market prices" may be obtained by adding up :

(1) what private persons spend on consumption, or what is called *personal consumption expenditure* ;

(2) what private business spends on replacement, renewal and new investment. This is called *gross domestic private investment* ;

(3) what the rest of the world spends on the output of the national economy over and above what this economy spends on the output of the rest of the world, *i.e.*, export surplus or *net foreign investment* ; and

(4) what the government spends on the purchase of goods and services, *i.e.*, *government purchases.*

(*ii*) *Net National Product.* (N.N.P). The second important concept of national income is that of net national product. In the production of gross national product of a year, we consume or use up some capital, *i.e.*, equipment, machinery, etc. The capital goods, like machinery, wear out or fall in value as a result of its consumption or use in the production process. This consumption of fixed capital or fall in value of capital due to wear and tear is called *depreciation.* When charges for depreciation are deducted from the gross national product we get net national product. Clearly, it means the *market value of all final goods and services* after providing for depreciation. Therefore it is also called 'national income at market prices.' Therefore,

Net National Product or National Income at Market Prices } = Gross National Product − Depreciation.

(*iii*) *National Income or National Income at factor cost.* (N.I.). In analysing certain problems we are very much interested in how much income is *earned* by resource suppliers for their contribution of land, labour, capital and entrepreneurial ability which go into the year's net production or, in other words, national income (or national income at factor cost) shows how much it costs society in terms of economic resources, to produce net output. The difference between national income (or national income at factor cost) and net national product (national income at market prices) arises from the fact that *indirect taxes* and *subsidies* cause market prices of output to be different from the factor incomes resulting from it. Suppose, for instance, a yard of mill cloth sold for Rs. 2 includes 25 nP. on account of the excise and the sales tax. In this case, while the market price of the cloth is Rs. 2 a yard, the factors engaged in its production and distribution would receive Rs. 1·75 nP. a yard. The value of cloth at factor cost would thus be equal to its value at market price less the indirect taxes on it. On the other hand a subsidy causes the market price to be less than the factor cost. Suppose handloom cloth is subsidized at the rate of 19 nP. a yard and it sells at 81 nP. Then while the consumer pays 81 nP. per yard, the factors engaged in the production and distribution of such cloth receive Re. 1 per yard. The value of handloom cloth at factor cost would thus be equal to its market price plus the subsidies paid on it. It follows therefore that the national income (or national income at facter cost) is equal to net national product *minus* indirect taxes plus subsidies.

National Income or National Income at Factor Cost } = Net National Product (National Income at Market prices) − Indirect Taxes + Subsidies.

(*iv*) *Personal Income.* (P.I.). Personal Income is the sum of all incomes *actually received* by all individuals or households during a given year. National income, that is, total income earned and personal income, that is, income received must be different for the simple reason that some income which is earned—social security contributions corporate income taxes and undistributed corporate profits—is not actually received by households and, conversely, some income which is received—transfer payments—is not currently earned. (Transfer payments are old-age pensions, unemployment compensation, relief payments, interest payments on the public debt, etc.). Obviously, in moving from national income as an indicator of income actually received we must subtract from national income those three types of income which are earned but not received and add in income received but not, currently earned. Therefore

Personal Income = National Income − Social Security Contributions − Corporate Income Taxes − Undistributed Corporate Profits + Transfer Payment.

(*v*) *Disposable Income.* (D.I.). After a good part of personal income is paid to government in the form of *personal taxes* like income tax, personal property taxes, etc., what remains of personal income is called *disposable income.*

Disposable Income = Personal Income — Personal Taxes.

Disposable Income can either be consumed or saved. Therefore

Disposable Income = Consumption + Saving.

3. **Measurement of National Income.** Since factor *incomes* arise from *production* of goods and services, and since incomes are *expanded* on goods and services produced, three alternative methods of measuring national income are possible.

(*a*) *The Product Method.* Under this method, the value of the gross *product* (sales *plus* self-consumption *plus* increase in stocks) of all producers in an industry is summed up, and from this total are deducted the purchases of these producers from other producers, *i.e.*, the value of the intermediate products, and the depreciation of equipment used up in the process of production. This gives the *net* value added by these producers or their contribution to the net value of aggregate national output. A net figure of this kind is estimated for each individual industry. These estimates are then summed up. This gives the net *domestic* product at factor cost *classified by industrial origin.* The addition of net income from abroad to this aggregate would give net *national* product or *national* income at factor cost.

(*b*) *The Income Method.* Under this method, the incomes that accrue to the factors of production provided by the normal residents of the national territory are summed up. This gives the national income *classified by distributive shares.*

(*c*) *The Expenditure Method.* Under this method, the personal consumption expenditures, the gross private domestic investment, the net foreign investment and the government purchase of goods and services are added up to obtain, as explained in an earlier section, the "gross national product at market prices". Necessary adjustments are then made to reduce this total into "net national income at factor cost".

A Factual Illustration. That all the above three methods of national income estimation lead to the same figure, if all constituent items are treated consistently in the three cases, may be illustrated with reference to the United States national income accounts for 1956.

First Method : U. S. National Income by Industrial Origin, 1956

		($ *million*)
1.	Agriculture, Forestry and Fisheries ...	16,084
2.	Mining ...	6,050
3	Contract construction ...	17,704
4.	Manufacturing ...	108,075
5.	Wholesale and retail trade ...	57,874

6.	Finance, insurance and real estate	...	30,932
7.	Transportation ...	...	16,713
8.	Communication and public utilities	...	12,499
9.	Services ...	...	35.550
10.	Government and government enterprises	...	40,078
11.	Total : Net Domestic Product	...	341,559
	Plus :		
12.	Net income from abroad ...	...	2,061
13.	*Equals* : Net National Income	...	343,620

Second Method : U. S. National Income by Distributive Shares, 1956

($ *million*)

1.	Compensation of employees	...	241,372
2.	Income of unincorporated enterprises	...	39,617
3.	Rental income of persons ...	...	10,322
4.	Corporate profits ...	...	40,449
5.	Net interest ...	..	11,860
6.	Total : Net National Income	...	343,620

Third Method : U.S. National Income by Types of Expenditure, 1956

($ *million*)

1.	Personal consumption expenditure	...	267,160
2.	Gross private domestic investment	...	65,923
3.	Net foreign investment ...	...	1,376
4.	Government purchase of goods and services	...	80,227
5.	Total : Gross National Product at Market Prices		414,686
6.	*Less* : Depreciation and Obsolescence	...	34,266
7.	*Equals* : Net National Product at Market Prices		380,420
8.	*Less* : Indirect taxes *minus* subsidies	...	36,800
9.	*Equals* : Net National Income	...	343,620

4. **Allocation of National Income Between Consumption and Saving.** To the extent national income is spent on the maintenance of the current life of the community, it is said to be allocated to *consumption*. The balance of national income constitutes the country's saving. For instance, in the United States, where all purchases by the government are classed as current or consumption

expenditure, the allocation of national income between consumption and saving in 1956 was as follows :

($ *million*)

	Gross income	*Consumption*	*Gross saving*	*Depreciation*	*Net saving*
Persons	287,202	267,160	20,042	...	20,042
Business	40,882	...	40,882	34,266	6,616
Government	104,218	...	4,776	...	4,776
Statistical Discrepancy	...	99,542	...	...	1,599
	432,302	366,702	65,700	34,266	33,033

5. **Allocation of National Expenditure Between Consumption and Investment.** National expenditure consists of two types of expenditure : consumption expenditure and investment expenditure. The first, as mentioned above, is incurred on maintaining the current life of the community. The second goes either to add to its domestic and foreign assets or to reduce its foreign liabilities. The position in the U.S.A. in 1956 was as follows :

($ *million*)

1.	Gross private domestic investment in fixed capital ...	161,369
2.	Investment in inventories or stocks ...	4,554
3.	Net foreign investment ...	1,376
4.	Total (Gross investment) ...	67,299
5.	*Less* : Depreciation ...	34,266
6.	*Equals* : Net investment ...	33,033

Equality of Saving and Investment. The data on the allocation of the U.S. National income between consumption and saving, and on the allocation of the U.S. national expenditure between consumption and investment bring out an important fact, namely, that saving is equal to investment. A nation saves what it invests, both within and outside the country.

6. **Social Accounting in India.** *Its difficulties.* In India, as in other under-developed countries, generally national accounting is beset with several conceptual and statistical difficulties. The most important of these are :

1. A substantial part of the output is not exchanged for money ; it is either consumed by the producers themselves or bartered for other commodities or services. This raises the difficult problem of imputation of value to such output, *i.e.*, what value to put for such output.

2. The bulk of productive activity, especially in the vast field outside modern industry, is undertaken by small producers who for the most part (as in agriculture and handicraft production) either do

not keep accounts or their accounts are not kept in a form that would facilitate the valuation of output.

3. The available data in most cases are not comprehensive, accurate and up-to-date enough for the purpose of a precise estimate of national income.

4. Since over a considerable proportion of the economy, there is little specialisation of functions, a precise classification of income by industrial origin or by distributive shares is rendered almost impossible.

7. **The National Income Committee.** (1953-54). For long, national income estimation in India was the work mainly of private effort. The estimates thus compiled not only varied greatly in territorial coverage, but also were little better than rough guesses. Dr. V.K.R.V. Rao's estimation of India's national income for 1931-32, however, was the first systematic attempt in that direction. A major step forward was taken in July 1949 when in recognition of the importance of national accounting, the Government of India formed the National Income Unit under the Ministry of Finance. In August 1949, the National Income Committee was appointed to "prepare a report on the National Income and related estimates, to suggest measures for improving the quality of the available data and for the collection of further essential statistics and to recommend ways and means of promoting research in the field of national income". It submitted its First Report in 1952 and the Final Report in 1954. Since then the annual estimates of national income are being compiled and issued by the Central Statistical Organisation of the Government of India.

Methodology Adopted by the Committee. Of the three methods of measuring national income described above, the committee, because of conceptual and statistical difficulties, did not consider the third method feasible; instead it employed a combination of the first and the second methods. First, the total working force and its occupational distribution were estimated. The product method was then applied to as many sectors as possible. To the remaining sectors the income method was applied. In a few cases, *e.g.*, small enterprises, the net income produced was estimated both by the product method and by the income method, but the results obtained by the latter were considered more satisfactory and were therefore adopted. The sum-total of the individual contributions of all the sectors gave the net domestic product at factor cost. Adjusting for the net income from abroad, the estimates of national income for the three years covered (1948—51) were derived.

8. **India's National Income.** As yet it has not been found possible to prepare a complete system of national accounts in India. Of the three forms in which national income estimates can be measured, so far this has been done only in the first form, namely, that by industrial origin. The latest available of these estimates are reproduced below :

India's National Income by Industrial Origin, 1959-60*

		Rs. abja (Rs. 00 crores) (at current Prices)	*Percentage of the total income*
A.	**Agriculture**		
1.	Agriculture, Animal Husbandry and Ancillary Activities	60·3	46·9
2.	Forestry	1·0	0·8
3.	Fishery	0·5	0·4
	Total of A	61·8	48·1
B.	**Mining, Manufacturing and Small Enterprises**		
4.	Mining	1·4	1·1
5.	Factory establishments	11·2	8·7
6.	Small enterprises	10·4	8·1
	Total of B	23·0	17·9
C.	**Commerce, Transport and Communication**		
7.	Communication (post, telegraph and telephone)	0·6	0·5
8.	Railways	3·3	2·6
9.	Organised banking and insurance	1·4	1·1
10.	Other commerce and transport	16·5	12·8
	Total of C	21·8	17·0
D.	**Other Services**		
11.	Professions and liberal arts	6·9	5·4
12.	Government services (administration)	8·1	6·3
13.	Domestic service	1·8	1·4
14.	House property	5·2	4·1
	Total of D	22·0	17·2
15.	Net domestic product at factor cost (A+B+C+D)	128·6	100·2
16.	Net earned income from abroad	−0·2	−0·2
17.	Net national output at factor cost=National Income.	128·4	100·0

* Preliminary, *vide* Govt. of India, Central Statistical Organisation, *Estimates of National Income, 1948-49 to 1959-60*, March 1961, pp. 2-3.

When a country's national income is divided by the number of its population, we get the *per capita* (*i.e.*, per head) income in that eountry. The *per capita* income in India in 1959-60 works out at Rs. 318·4. In other words, the average income per head in our country is hardly Rs. 26 p.m. Clearly this is a very low figure and reflects our extreme poverty. A comparison with the *per capita* incomes of advanced countries of the West further underlines the fact of our poverty. Take for example Britain, where the *per capita* income amounts to Rs. 3,858, and the United States, where the corresponding figure is as high as Rs. 9,196. Even certain countries in Asia have much large *per capita* incomes than India, *e.g.*, Ceylon, Rs. 541, Japan, Rs. 820.

A very important cause of poverty in India can be seen from the above table : agriculture accounts for as much as one-half of the country's total output, while industries account for less than one-fifth. In other words, there is *a fundamental unbalance in the country's economy.*

Our Five-Year Plans aim at increasing our national income at a rapid rate. Over the period of the First Five-Year Plan, India's national income increased by 17·5%. Since population also continued to increase, the percentage increase during that period in the *per capita* income was less ; it amounted to 10·5%.[1] During Second Five-Year Plan the increase in national income was 20% as against a target of 25%. Over the ten-year period since the beginning of the Five-Year Plan, national income in India has increased by 42%, but owing to the rapid rate of increase in population, the increase in income per head has been 16% only. The aim now of the Third Five-Year Plan is to increase national income further by 30% and *per capita* income by about 17% over the next five years.[2] But considering the present very low level of *per capita* income, we shall need many more plans before we can hope to attain a level that ensures a reasonably good standard of living to our people.

WHAT YOU HAVE LEARNT FROM THIS CHAPTER

Gross National Product at Market Price is the market value of the utput of goods and service produced by the nation's economy without deducting depreciation and obsolescence. It may be obtained by adding up the following :—

Personal consumption, expenditure, gross domestic private investment, net foreign investment, and government purchases of goods and services.

National Product at Market Price is obtained by deducing depreciation from *Gross National Product at Market Price.*

National Income at Factor Cost is the total of all income payments according to factors of production. It is equal to the net national income at market prices *plus* subsidies *minus* indirect taxes.

Domestic Product at Factor Cost is the net factor income generated on the national territory. It is equal to the net national income at factor cost *minus* net income from abroad.

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1. *Ibid.*

2. Government of India, Planning Commission : *Third Five-Year Plan*, August 1961, p. 55.

Measurement of National Income may be undertaken in one or more of the following ways :—

Under the *Product Method*, the net value added in each of the various ndustries is summed up to obtain net domestic product at factor cost. The addition of net income from abroad to this aggregate gives national income.

Under the *Income Method*, the national income is obtained by adding up income (wages, rent, interest and profit) that accrue to the normal residents of the national territory.

Under the *Expenditure Method*, the personal consumption expenditures, the gross private domestic investment, the net foreign investment and the government purchases of goods and services are added up to obtain the gross national product at market prices. From this total, indirect taxes *less* subsidies are deducted to obtain net national income at factor cost.

Allocation of National Income and Expenditure. The part of national income spent on the maintenance of the current life of the community is said to be allocated to consumption. The balance constitutes the country's saving.

National expenditure is of two types : *consumption expenditure* and *investment expenditure*. The first is incurred on maintaining the current life of the community ; the second goes either to add to its domestic and foreign assets or to reduce its foreign liabilities.

For the economy as a whole *saving equals investment*.

Difficulties of National Accounting in India arise from the following :—

(*a*) A substantial part of the output is not exchanged for money.

(*b*) The bulk of production activity is undertaken by unincorporated enterprises.

(*c*) The available data often are not comprehensive, accurate and up-to-date enough.

(*d*) Over the greater part of the economy, there is no specialization of functions.

Methodology adopted by the National Income Committee. In measuring India's national income, the National Income Committee has adopted a combination of the **Product Method** and the **Income Method.**

India's National Income in 1959-60 was Rs. 128·4 obja, *i.e.*, Rs. 12,840 crores contributed by the various sectors as follows : Agriculture, 48·1%; mining, manufacturing and small enterprises, 17·9% ; commerce, transport and communication, 17·0% ; other services, 22·0% ; and the rest of the world, —0·2%.

CAN YOU ANSWER THESE QUESTIONS ?

1. *What do you understand from the following terms :*

(*a*) *Gross National Product at Market Prices.*

(*b*) *Net National Product at Market Price.*

(*c*) *Net Domestic Product at Factor Cost.*

(*d*) *Net National Income at Factor Cost.*

2. *Define national income. How can it be measured ?* (*P.U. 1958*)

3. *Give the methods employed in India for the measurement of national income.*

4. *How are national income and national expenditure allocated ?*

5. *Describe the methods of measuring national income. State the difficulties of measuring national income in India.* (*P.U. 1956 Supp.*)

6. *Define national income. How can it be measured ?* (*Sardar Vallabhbhai Vidyapeeth 1959*)

7. *How is the national income computed ? Account for the low level of national income of India.* (*Sardar Vallabhbhai Vidyapeeth 1959*)

8. Examine the national income of India and point out its principal features. (*P.U. Inter 1960*)

9. Explain clearly the three identical national aggregates and their relationship as summarised below, for your guidance :—

Relation between National Income, Product and Expenditure

Income or Product	*Expenditure*
Domestic factor incomes domestic product.	=Consumption (including its import context). *plus* Adding to domestic wealth (including its import content)
plus Net income from abroad	=Domestic expenditure *plus* Exports of goods and services (including their import content) and income from abroad. *Less* Imports of goods and services and income paid abroad.
National Income or Product	=National Expenditure (*P.U. 1961*)

MODEL REVISION PAPER

N.B. *Attempt any five questions. All questions carry equal marks.*

1. Differentiate between :

(*a*) Nominal wage and real wage.

(*b*) Average cost and marginal cost.

(*c*) Demand deposits and time deposits.

(*d*) Fixed costs and variable costs.

(*e*) Balance of trade and balance of payments.

(*f*) Wealth and capital.

(*g*) Wealth and income.

(*h*) Value and price.

(*i*) Favourable balance of trade and unfavourable balance of trade.

(*j*) Price cost and supplementary cost.

(*k*) Increase of demand and extension of demand.

(*l*) Gross interest and net interest.

2. "Economics is the Science of Wealth." Why is this definition of Economics regarded as defective ? Give what you consider to be the proper definition.

3. What is a family budget ? Prepare the family budget of a school teacher drawing a salary of Rs. 180.

4. (*A*) Which one of the following come under 'labour' as understood in Economics and which of them cannot be regarded as labour ? Give reasons in support of your answer.

(*a*) A college professor looking after his cow ;

(*b*) A physical training instructor doing drill ;

(*c*) Chief Minister's work in his office ;

(*d*) Speaker of the Vidhan Sabha presiding over a meeting of the Vidhan Sabha ;

(*e*) Education Minister painting a picture at his house ;

(*f*) A musician singing before his friends ;

(*g*) An Inspector inspecting a school.

(*B*) Fill in the following blanks by using one of the words given in brackets against each statement :—

(*i*) Economics is a.....science.
(political, social, technical, educational, physical)

(*ii*) Labour is less mobile than.....
(capital, land)

(*iii*) Price is.....expressed in terms of money.
(utility, value)

(*iv*) Land is a.....gift of nature.
(valuable, free, costly)

(*v*) The building of a factory is its.....capital.
(sunk, circulating)

(*vi*) Free goods have a great.....
(value-in-use, value-in-exchange)

(*vii*) As the price of a commodity falls the demand for it .....(increases, extends)

(*viii*) Meat and wool are examples of.....
(joint supply, composite supply).

(*ix*) A joint-stock company has.....liability.
(unlimited, limited)

(*x*) A consumer generally spends his income according to the law of.....
(diminishing marginal utility, increasing cost, equi-marginal utility)

(*xi*) There is at present.....in India.
(inflation, deflation)

(*xii*) There is usually a ....market in bricks.
(national, world, local)

(*xiii*) Money, raw materials and shares of a company are examples of ..... capital.
(floating, sink)

(*xiv*) The work of the Chief Minister driving his own car .....as labour.
(can be considered, cannot be considered)

(*xv*) Cotton thread used by a tailor is.....
(consumer's goods, producer's goods)

4. What are the causes of 'localisation of industry' ? Illustrate with reference to Indian industries.

5. You have read in Economics about the several advantages of large-scale production. Yet we see such a large number of small-scale businesses not only in India, but also in advanced countries of the world. How do you explain this ?

6. State and explain the law of Diminishing Returns with its limitations.

7. Distinguish between 'market price' and 'normal price'. How is normal price determined under conditions of perfect competition ?

8. What is a Cheque ? Give specimen forms of the various types of cheques, bringing out the difference between them.

9. Explain briefly the advantages of international trade. Are there any disadvantages also ? If so, explain briefly.

10. Distinguish between "nominal" wages and "real" wages. Compare the "real" wages of a teacher in a school with those of a clerk in an office, both drawing the same salary.

11. Briefly explain the main canons of taxation.

12. Describe the essential features of the capitalistic economic order.

13. Define marginal utility. Complete the following table :—

Oranges	*Total Utility*	*Marginal Utility*
1	12	
2	22	
3	30	
4	36	
5	40	

Enunciate the law illustrated by the above table. Measure the average utility corresponding to each marginal utility in the above table.

14. Indicate which of the following supplements are correct and which ones are incorrect :—

(*a*) Marginal utility is a function of supply.

(*b*) A clearing house is an institution for settling disputes between banks.

(*c*) The annual income of the Government of a country is called national income.

(*d*) A bill of exchange is used for the direct exchange of some goods for others.

(*e*) In extensive cultivation more of capital and labour are applied to a limited area of land.

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